Office de la Propriété Intellectuelle du Canada
Un organisme d'Industrie Canada

Canadian Intellectual Property Office
An agency of Industry Canada

CA 2235088 C 2002/04/16

(11)(21) 2 235 088

(12) BREVET CANADIEN
CANADIAN PATENT

(13) C

(22) Date de dépôt/Filing Date: 1998/04/17

(41) Mise à la disp. pub./Open to Public Insp.: 1998/10/18

(45) Date de délivrance/Issue Date: 2002/04/16

(30) Priorité/Priority: 1997/04/18 (08/845,125) US

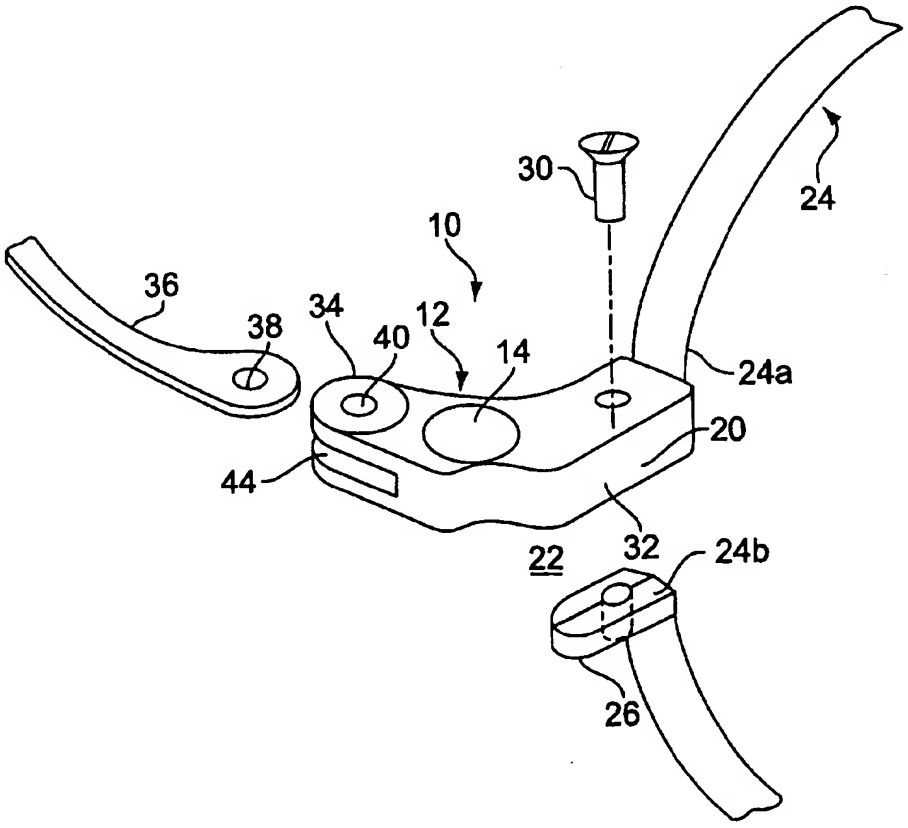
(51) Cl.Int.^{6}/Int.Cl.^{6} G02C 9/00

(72) Inventeur/Inventor:
MADISON, Julie B., US

(73) Propriétaire/Owner:
ASPEX EYEWEAR, INC., CA

(74) Agent: MACRAE & CO.

(54) Titre : UNIBLOC DE LUNETTES
(54) Title: SPECTACLES UNIBLOCK



(57) Abrégé/Abstract:
Eyeglasses and clip-ons are improved by providing housings for magnets for securing the clip-ons in a uniblock also incorporating one or more of the following: part of a closing block, an end piece, and part of a hinge. The structure is more compact, neater in appearance, and of improved quality as compared to eyeglasses incorporating conventional structures, and is less expensive to manufacture than many conventional eyeglasses, especially in large volume.

ABSTRACT

Eyeglasses and clip-ons are improved by providing housings for magnets for securing the clip-ons in a uniblock also incorporating one or more of the following: part of a closing block, an end piece, and part of a hinge. The structure is more compact, neater in appearance, and of improved quality as compared to eyeglasses incorporating conventional structures, and is less expensive to manufacture than many conventional eyeglasses, especially in large volume.

OBJECTS AND SUMMARY OF THE INVENTION

An object of the invention is to remedy the problems of the prior art noted above and in particular to provide an eyeglasses uniblock that is more attractive than corresponding structures in prior eyeglasses and less expensive than many of them.

Another object of the invention is to provide an eyeglasses uniblock that can be incorporated in a primary structure (the eyeglasses proper) or an auxiliary structure (sometimes called clip-ons, even if held by magnets instead of clips).

Another object of the invention is to provide eyeglasses and clip-ons that take advantage of the new styling possibilities afforded by the invention.

Another object of the invention is to provide eyeglasses of improved quality and stability.

The foregoing and other objects of the invention are attained in accordance with a first embodiment thereof by providing an eyeglasses uniblock comprising a portion forming a housing for securing means adapted to secure an auxiliary lens in superimposed relation to (in front of or behind) a primary lens and a portion forming a part of a closing block for securing the uniblock to a frame for one of the lenses.

In accordance with other embodiments of the invention, structures forming (1) a housing for a magnet or other securing means, (2) part of a closing block, (3) an end piece, and (4) parts of a hinge are combined in different ways, as follows:

- an eyeglasses uniblock comprising a portion forming a housing for a magnet adapted to secure an auxiliary lens in superimposed relation to a primary lens and a portion forming an end piece adapted for connection to one of the lenses;

- an eyeglasses uniblock comprising a portion forming a housing for a magnet adapted to secure an auxiliary lens in superimposed relation to a primary lens and a portion forming a part of a hinge for supporting a temple piece;

- an eyeglasses uniblock comprising a portion forming a housing for a magnet adapted to secure an auxiliary lens in superimposed relation to a primary lens, a portion forming a part of a closing block for securing the uniblock to one of the lenses, and a portion forming an end piece adapted for connection to said one of the lenses;

- an eyeglasses uniblock comprising a portion forming a housing for a magnet adapted to secure an auxiliary lens in superimposed relation to a primary lens, a portion forming an end piece adapted for connection to the primary lens, and a portion forming a part of a hinge for supporting a temple piece;

• an eyeglasses uniblock comprising a portion forming a housing for a magnet adapted to secure an auxiliary lens in superimposed relation to a primary lens, a portion forming a part of a closing block for securing the uniblock to the primary lens, a portion forming an end piece adapted for connection to a primary lens, and a portion forming a part of a hinge for supporting a temple piece.

In accordance with other embodiments of the invention, eyeglasses are provided comprising different combinations of features, as follows:

• first and second primary lenses and first and second uniblocks, the first uniblock comprising a portion forming a first housing for a first magnet adapted to secure auxiliary lenses in superimposed relation to primary lenses and a portion forming a part of a first closing block for securing the first uniblock to the first primary lens; and the second uniblock comprising a portion forming a second housing for a second magnet adapted to secure auxiliary lenses in superimposed relation to the primary lenses and a portion forming a part of a second closing block for securing the second uniblock to the second primary lens;

• first and second primary lenses, first and second uniblocks, third and fourth auxiliary lenses, and third and fourth uniblocks, wherein: the first uniblock comprises a portion

forming a first housing for a first magnet adapted to secure the auxiliary lenses in superimposed relation to the primary lenses and a portion forming a part of a first closing block for securing the first uniblock to the first primary lens; the second uniblock comprises a portion forming a second housing for a second magnet adapted to secure the auxiliary lenses in superimposed relation to the primary lenses and a portion forming a part of a second closing block for securing the second uniblock to the second primary lens; the third uniblock comprises a portion forming a third housing for a third magnet adapted to secure the auxiliary lenses in superimposed relation to the primary lenses and a portion forming a part of a third closing block for securing the third uniblock to the third auxiliary lens; and the fourth uniblock comprises a portion forming a fourth housing for a fourth magnet adapted to secure the auxiliary lenses in superimposed relation to the primary lenses and a portion forming a part of a fourth closing block for securing the fourth uniblock to the fourth auxiliary lens.

In accordance with another embodiment of the invention, there are provided, in combination, an upper eyeglasses uniblock comprising a portion forming a housing for a magnet adapted to secure an auxiliary lens in superimposed relation to a primary lens and a portion forming a part of a closing block; and a lower eyeglasses uniblock, the upper and lower uniblocks being joined together in superimposed relation to form a composite structure.

BRIEF DESCRIPTION OF THE DRAWING

A better understanding of the objects, features and advantages of the invention can be gained from a consideration of the following detailed description of the preferred embodiments of the invention, in conjunction with the appended figures of the drawing, wherein:

Fig. 1 is a perspective view from above of a first embodiment of the invention;

Fig. 2 is a perspective view from below of the structure shown in Fig. 1;

Fig. 3 is a perspective view from above of another embodiment of the invention;

Fig. 4 is a perspective view from below of another embodiment of the invention;

Fig. 5 is an exploded perspective view from above of the structure shown in Fig. 4;

Fig. 6 is a perspective view from above of another embodiment of the invention;

Fig. 7 is an exploded perspective view from below of the structure illustrated in Fig. 6;

Fig. 8 is a perspective view from above of another embodiment of the invention;

Fig. 9 is an exploded perspective from below of a portion of the structure illustrated in Fig. 8;

Fig. 10 is a perspective view from above of another embodiment of the invention;

Fig. 11 is an exploded perspective view from below of the structure shown in Fig. 10;

Fig. 12 is a perspective view from above of another embodiment of the invention;

Fig. 13 is a perspective view from above of another embodiment of the invention;

Fig. 14 is an exploded perspective view from above of another embodiment of the invention;

Fig. 15 is an exploded top view of the structure shown in Fig. 14;

Fig. 16 is an assembled perspective view from above of the structure of Figs. 14 and 15;

Fig. 17 is a top view of the structure shown in Fig. 16;

Fig. 18 is an exploded perspective view from above of another embodiment of the invention;

Fig. 19 is an exploded perspective view from above of another embodiment of the invention;

Fig. 20 is a top view of the structure shown in Fig. 19;

Fig. 21 is a perspective view from above of another embodiment of the invention;

Fig. 22 is a bottom view, partly in section, of the structure shown in Fig. 21;

Fig. 23 is an exploded perspective view from above of the structure of Fig. 21;

Fig. 24 is an exploded perspective view from above of another embodiment of the invention;

Fig. 25 is a perspective view from above of another embodiment of the invention;

Fig. 26 is a top view of a left uniblock constructed in accordance with the invention;

Fig. 27 is a bottom view of a right uniblock constructed in accordance with the invention and forming a pair with the uniblock of Fig. 26;

Figs. 28 and 29 are views in axial section of two embodiments of a magnet housing constructed in accordance with the invention;

Fig. 30 is a view in a direction at a right angle to the views of Figs. 28 and 29, and, showing the shape of a bar magnet and magnet housing as seen by an observer of one embodiment of the invention;

Figs. 31-34 are views similar to Fig. 32 showing housing and magnet shapes in other embodiments of the invention;

Figs. 35 and 36 are respectively top and front views of one embodiment of auxiliary lenses constructed in accordance with the invention; and

Figs. 37 and 38 are respectively top and front views of the auxiliary lenses of Figs. 35 and 36 secured in superimposed relation to compatibly designed primary eyeglasses constructed in accordance with the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Fig. 1 is an exploded perspective view from above of a first embodiment of structure including an eyeglasses uniblock 10 constructed in accordance with the invention. The uniblock 10 is a cast structure and comprises a housing 12 for a magnet 14 adapted to secure an auxiliary lens 16 over a primary lens 18 (both illustrated for example in Fig. 13). Instead of the magnet 14, snaps, slides, notches, clips or other securing means (not illustrated) can be employed. Instead of being cast, the uniblock 10 can be extruded or stamped.

The uniblock 10 also comprises a portion 20 forming a part of a closing block 22 for securing the uniblock 10 to one of the lenses, for example the primary lens 18. The closing block 22 secures the uniblock 10 to a lens since the portion 20 is connected to one end 24a (Fig. 1) of a frame or rim 24 that surrounds the lens. The other end 24b of the rim 24 has a flange 26 that fits into a recess 28 (Fig. 2) on the part 20 and is secured by a screw or pin 30.

The uniblock 10 of Fig. 1 incorporates, as part of the same one-piece cast structure, an end piece 32 providing a neat appearance.

The uniblock 10 also comprises a portion 34 forming a part of a hinge for supporting a temple piece 36. The temple piece 36 has an opening 38 that aligns with openings 40, 42

(Figs. 1 and 2) in the hinge part 34 and is inserted within a slot 44 formed in the hinge part 34. A pin or screw 48 (Fig. 3) is inserted to hold the temple piece 36 in position and allow for its pivoting movement about the pin 48, so that the temple piece 36 and a companion temple piece on the other side of the eyeglasses can be forded for storage of the eyeglasses in a case, pocket, purse or drawer, etc., or opened for use. The invention is also adapted to be used with a hinge that does not employ a pin or screw.

In Figs. 1 and 2 the magnet 14, which is a bar magnet, is oriented with its axis vertical; in Fig. 3, it is oriented with its axis horizontal. It is also within the scope of the invention to employ horseshoe magnets and magnets of other designs. In Figs. 1 and 2, the pin or screw 30 is inserted from above, and in Fig. 3 it is inserted from below. Other orientations of the magnet, and the use of securing means other than pins and screws are within the scope of the invention.

In Figs. 4 and 5, the same parts are shown as in Figs. 1 - 3, but they are split along a horizontal plane 49 into an upper eyeglasses uniblock 50 comprising a portion forming a housing 12a for a magnet 14 adapted to secure an auxiliary lens in superimposed relation to a primary lens and a portion 22a forming a part of a closing block; and a lower eyeglasses uniblock 52, the upper and lower uniblocks 50, 52 being joined together in superimposed relation by a pin or screw 30 to form the composite

structure shown in Fig. 4. In Figs. 4 and 5, the lower uniblock 52 includes a portion 12b forming a housing for the magnet 14 and a portion 22b forming a part of the closing block. The uniblock can be produced by casting, stamping or extruding depending on the shape used and degree of cost savings required.

In Figs. 6 and 7, the eyeglasses uniblock 10 comprises a portion forming a housing 12 for a magnet 14 adapted to secure an auxiliary lens in superimposed relation to a primary lens and a portion forming a part of a closing block 22 for securing the uniblock 10 to one of the lenses. A separate end piece 54 is provided for neatness and is soldered in place. In Figs. 6 and 7, the uniblock is secured temporally to one of the lenses (since it is attached temporally to a rim that surrounds the lens).

In Fig. 8, the uniblock 10 is attached nasally to one of the lenses (since it is attached to a frame 24 that surrounds the lens). Fig. 8 also shows a second uniblock 10x similarly attached to the other lens (since it is attached to a frame 24x that surrounds the other lens). A bridge 56 connects the uniblocks 10 and 10x.

Fig. 9 is an exploded perspective view from below showing the manner in which the structure is assembled. A screw 30 is inserted from below to secure the closing block.

Fig. 10 shows an embodiment of a uniblock 10g

applicable to an auxiliary lens 16. It shows a portion forming a housing for a magnet 14 adapted to secure an auxiliary lens in superimposed relation to a primary lens and a portion forming a part of a closing block 22 for securing the uniblock 10g to one of the auxiliary lenses 16.

Fig. 11 is an exploded perspective view showing the structure from below, including a screw 30 that secures the closing block 22.

Fig. 12 shows the combination of an upper eyeglasses uniblock 50 comprising a portion forming a housing for a magnet 14 adapted to secure an auxiliary lens 16 in superimposed relation to a primary lens and a portion 22a forming a part of a closing block 22; and a lower eyeglasses uniblock 52 comprising a portion forming a housing for the magnet 14 and portion 22b forming a part of the closing block 22, the upper and lower uniblocks 50, 52 being joined together in superimposed relation to form a composite structure. In this case, the structure is applied to an auxiliary lens.

Fig. 13 show the cooperation of a primary lens 18, a uniblock associated therewith, a secondary lens 16, and a uniblock associated therewith. Each of the uniblocks comprises a portion forming a housing for a magnet adapted to secure an auxiliary lens in superimposed relation to a primary lens and a portion forming a part of a closing block for securing the

uniblock to one of the lenses. The two magnets are opposed north pole to south pole, so that they attract. It is also within the scope of the invention to employ a magnet in one of the uniblocks opposed to a ferromagnetic material in the other uniblock. It forms a more secure attachment, however, if two magnets are employed and juxtaposed as indicated above.

In practice, of course, in the preferred embodiments of the invention four magnets are employed altogether, two on either side of the eyeglasses.

Figs. 14-17 show an eyeglasses uniblock 10 comprising a portion forming a housing 12 for a magnet 14 adapted to secure an auxiliary lens in superimposed relation to a primary lens and a portion 34 forming a part of a hinge for supporting a temple piece 36. A clip-on 60 has a magnet 14' supported by an arm 58 forming part of a uniblock 10' attached to the auxiliary lens 16 (through its frame 24). The magnetic housings for the two uniblocks 10, 10' are shaped so that each magnet is oriented with its axis horizontal. The arm 58 passes over the uniblock 10 for the primary lens and is connected from the rear. Figs. 16 and 17 show the structure in assembled relation.

Fig. 18 shows the portion forming a magnet housing 12 and a portion 34 forming a part of a hinge covered by a separate end piece 32 soldered in place. The magnet axis is vertical.

The structures of Figs. 14-18 are illustrated with frames, but it is within the scope of the invention to attach the uniblocks shown in those figures to a separate end piece which is attached to the lens directly, not through a frame surrounding the lens.

Figs. 19 and 20 show an eyeglasses uniblock 10 comprising a portion forming a housing 12 for a magnet 14 adapted to secure an auxiliary lens in superimposed relation to a primary lens, a portion forming a part of a closing block 22 for securing the uniblock to one of the lenses, and a portion 32 forming an end piece adapted for connection to said one of the lenses. The magnet 14 has its axis oriented horizontally. A separate hinge 62 is provided, comprising a part 64 attached to the uniblock 10, a part 66 attached to the temple piece 36, and a pin or screw 48 passing through aligned apertures in the two parts. Fig. 20 shows the assembled structure as it appears from the top.

Fig. 21 shows an eyeglasses uniblock 10 comprising a portion forming a housing 12 for a magnet 14 adapted to secure an auxiliary lens in superimposed relation to a primary lens, a portion forming an end piece 32 adapted for connection to the primary lens, and a portion 34 forming a part of a hinge for supporting a temple piece 36. The uniblock is cast and especially adapted for use with an acetate frame.

Fig. 22 is a view from the bottom, partly in section,

showing a pin or screw 30 inserted from the rear in a dead-end cylindrical hole 68 for securing the uniblock 10 to the frame 24.

Fig. 23 is an exploded view of the uniblock 10 showing how it is assembled with the frame 24 by a pin or screw 30 and with the temple piece 36 by a pin or screw 48.

Fig. 24 shows a uniblock 10 comprising a portion forming a housing 12 for a magnet 14 adapted to secure an auxiliary lens in superimposed relation to a primary lens, a portion forming an end piece 32 adapted for connection to the primary lens, and a portion 34 forming a part of a hinge for supporting a temple piece 36. The uniblock of Fig. 24 is especially adapted for use with a metal frame.

Fig. 25 shows a uniblock 10 having the same three elements constructed as a three-piece mount (mounted temporally without a frame). In this case, the uniblock 10 is attached to a post 70 that extends through the lens.

Fig. 26 is a top view of a left eyeglasses uniblock 10 comprising a portion forming a housing 12 for a magnet 14, a portion 32 forming an end piece, and a portion 34 forming a part of a hinge. The uniblock 10 is attached to a rim 24.

Fig. 27 is a bottom view of a right eyeglasses uniblock 10 forming a pair with the uniblock of Fig. 26. Fig. 27 also

shows a lens.

Fig. 28 shows a housing 12 for a magnet. The housing 12 has a portion 72 of a diameter approximately equal to the diameter of the magnet. A shoulder 74 separates the housing portion 72 from another housing portion 76 having a diameter slightly smaller than the diameter of the magnet. The magnet is inserted from one side in the direction of the arrow 78 and is forced into the portion 76 having the smaller diameter, so that it is retained securely.

Fig. 29 is a sectional view of a magnet housing 12 closed at one end 80 and having a uniform diameter. The magnet can be seated at 80 with the aid of an adhesive such as epoxy, or forced in place.

Figs. 30-34 respectively show housings shaped to accommodate magnets that are respectively round, rectangular, square, elliptical and oval, as viewed in a direction parallel to the axes of the magnets.

Figs. 35-38 show eyeglasses and auxiliary lenses mounted together in accordance with the present invention.

Thus there is provided in accordance with the invention eyeglasses having a novel and highly effective uniblock of which a portion forms a housing for a magnet or other securing means

adapted to secure an auxiliary lens in superimposed relation to a primary lens. Many modifications of a preferred embodiments disclosed herein will readily occur to those skilled in the art. The invention includes all embodiments thereof that fall within the scope of the appended claims.

CLAIMS

1. An eyeglasses uniblock comprising

a portion forming a housing for securing means adapted to secure an auxiliary lens in superimposed relation to a primary lens and

a portion forming a part of a closing block for securing the uniblock to a frame for one of the lenses.

2. An eyeglasses uniblock comprising

a portion forming a housing for a magnet adapted to secure an auxiliary lens in superimposed relation to a primary lens and

a portion forming an end piece adapted for connection to one of the lenses.

3. An eyeglasses uniblock according to claim 2 wherein the end piece is connected directly to the lens.

4. An eyeglasses uniblock according to claim 2 wherein the end piece is connected indirectly to the lens, through a frame for the lens.

5. An eyeglasses uniblock comprising

a portion forming a housing for a magnet adapted to secure an auxiliary lens in superimposed relation to a primary lens and

a portion forming a part of a hinge for supporting a temple

piece.

6. An eyeglasses uniblock comprising

a portion forming a housing for a magnet adapted to secure an auxiliary lens in superimposed relation to a primary lens,

a portion forming a part of a closing block for securing the uniblock to a frame for one of the lenses, and

a portion forming an end piece adapted for connection to said frame.

7. An eyeglasses uniblock comprising

a portion forming a housing for a magnet adapted to secure an auxiliary lens in superimposed relation to a primary lens,

a portion forming an end piece adapted for connection to the primary lens, and

a portion forming a part of a hinge for supporting a temple piece.

8. An eyeglasses uniblock according to claim 7 wherein the end piece is connected directly to the lens.

9. An eyeglasses uniblock according to claim 7 wherein the end piece is connected indirectly to the lens, through a frame for the lens.

10. An eyeglasses uniblock comprising

a portion forming a housing for a magnet adapted to secure

an auxiliary lens in superimposed relation to a primary lens,

a portion forming a part of a closing block for securing the uniblock to a frame for the primary lens,

a portion forming an end piece adapted for connection to the frame, and

a portion forming a part of a hinge for supporting a temple piece.

11. Eyeglasses comprising first and second primary lenses and first and second uniblocks,

the first uniblock comprising

a portion forming a first housing for a first magnet adapted to secure auxiliary lenses in superimposed relation to the primary lenses and

a portion forming a part of a first closing block for securing the first uniblock to a frame for the first primary lens; and

the second uniblock comprising

a portion forming a second housing for a second magnet adapted to secure the auxiliary lenses in superimposed relation to the primary lenses and

a portion forming a part of a second closing block for securing the second uniblock to a frame for the second primary lens.

12. Eyeglasses comprising first and second primary lenses, first and second uniblocks, third and fourth auxiliary lenses, and

third and fourth uniblocks,

the first uniblock comprising

a portion forming a first housing for a first magnet adapted to secure the auxiliary lenses in superimposed relation to the primary lenses and

a portion forming a part of a first closing block for securing the first uniblock to a frame for the first primary lens;

the second uniblock comprising

a portion forming a second housing for a second magnet adapted to secure the auxiliary lenses in superimposed relation to the primary lenses and

a portion forming a part of a second closing block for securing the second uniblock to a frame for the second primary lens;

the third uniblock comprising

a portion forming a third housing for a third magnet adapted to secure the auxiliary lenses in superimposed relation to the primary lenses and

a portion forming a part of a third closing block for securing the third uniblock to a frame for the third auxiliary lens; and

the fourth uniblock comprising

a portion forming a fourth housing for a fourth magnet adapted to secure the auxiliary lenses in superimposed relation to the primary lenses and

a portion forming a part of a fourth closing block for

securing the fourth uniblock to a frame for the fourth auxiliary lens.

13. A uniblock according to claim 1 secured nasally to said one of the lenses.

14. A uniblock according to claim 1 secured temporally to said one of the lenses.

15. A uniblock according to claim 1 wherein the housing is shaped to accommodate securing means that is round.

16. A uniblock according to claim 1 wherein the housing is shaped to accommodate securing means that is rectangular.

17. A uniblock according to claim 1 wherein the housing is shaped to accommodate securing means that is square.

18. A uniblock according to claim 1 wherein the housing is shaped to accommodate securing means that is elliptical.

19. A uniblock according to claim 1 wherein the housing is shaped to accommodate securing means that is oval.

20. A uniblock according to claim 1 wherein the securing means comprises a magnet and the housing is shaped to accommodate a magnet having a magnetic axis oriented horizontally.

21. A uniblock according to claim 1 wherein the securing means comprises a magnet and the housing is shaped to accommodate a magnet having a magnetic axis oriented vertically.

22. A uniblock according to claim 1 wherein the housing is shaped as an opening extending partway through the uniblock.

23. A uniblock according to claim 1 wherein the housing is shaped as an opening extending entirely through the uniblock.

24. A uniblock according to claim 1 formed as a casting.

25. A uniblock according to claim 1 formed as an extrusion.

26. A uniblock according to claim 1 formed as a stamping.

27. In combination,

an upper eyeglasses uniblock comprising

a portion forming a housing for a magnet adapted to secure an auxiliary lens in superimposed relation to a primary lens and

a portion forming a part of a closing block; and

a lower eyeglasses uniblock,

the upper and lower uniblocks being joined together in superimposed relation to form a composite structure.

28. The combination of claim 27 wherein the lower uniblock comprises:

a portion forming a housing for the magnet; and

a portion forming a part of the closing block.

29. Eyeglasses comprising:

at least one primary lens;

at least one auxiliary lens;

a magnet connected nasally to at least one of the lenses; and

an object made of magnetic material connected nasally to the other of the lenses;

the magnet and object made of magnetic material cooperating to maintain a superimposed relation between the primary lens and the auxiliary lens.

30. Eyeglasses according to claim 29 wherein the magnet is connected indirectly to the lens, through a bridge.

31. Eyeglasses according to claim 29 wherein the object made of magnetic material is a magnet.

32. Eyeglasses according to claim 29 wherein the magnet has a magnetic axis oriented vertically.

33. Eyeglasses comprising:

a pair of primary lenses;

a pair of auxiliary lenses;

a pair of magnets each connected nasally to at least one of the pairs of lenses; and

a pair of objects each made of a magnetic material and each connected nasally to at least one of the pairs of lenses and in opposed relation to one of the magnets;

the magnets and objects made of magnetic material cooperating to maintain a superimposed relation between the respective pairs of lenses.

34. Eyeglasses comprising:

a pair of primary lenses;

a pair of auxiliary lenses;

a first pair of magnets each connected nasally to the pair of primary lenses; and

a second pair of magnets each connected nasally to the pair of auxiliary lenses and in opposed relation to a magnet of the first pair of magnets;

the first and second pairs of magnets cooperating to maintain a superimposed relation between the respective pairs of lenses.

35. Eyeglasses according to claim 34 wherein each of the magnets has a magnetic axis oriented vertically.

36. An eyeglasses uniblock comprising:

a portion forming a housing for a magnet adapted to secure an auxiliary lens in superimposed relation to a primary lens and

a portion forming a bridge adapted for connection to one of the lenses.

37. A uniblock according to claim 36 secured nasally to said one of the lenses.

38. A uniblock according to claim 36 wherein the housing is shaped to accommodate securing means that is round.

39. A uniblock according to claim 36 wherein the housing is shaped to accommodate securing means that is rectangular.

40. A uniblock according to claim 36 wherein the housing is shaped to accommodate securing means that is square.

41. A uniblock according to claim 36 wherein the housing is shaped to accommodate securing means that is elliptical.

42. A uniblock according to claim 36 wherein the housing is shaped to accommodate securing means that is oval.

43. A uniblock according to claim 36 wherein the securing means comprises a magnet and the housing is shaped to accommodate a magnet having a magnetic axis oriented horizontally.

44. A uniblock according to claim 36 wherein the securing means comprises a magnet and the housing is shaped to accommodate a magnet having a magnetic axis oriented vertically.

45. A uniblock according to claim 36 wherein the housing is shaped as an opening extending partway through the uniblock.

46. A uniblock according to claim 36 wherein the housing is shaped as an opening extending entirely through the uniblock.

47. A uniblock according to claim 36 formed as a casting.

48. A uniblock according to claim 36 formed as an extrusion.

49. A uniblock according to claim 36 formed as a stamping.

50. An eyeglasses uniblock comprising:

a portion forming a housing for a magnet adapted to secure an auxiliary lens in superimposed relation to a primary lens;

a portion forming a part of a closing block for securing the uniblock to a frame for one of the lenses; and

a portion forming a bridge adapted for connection to said frame.

51. Eyeglasses comprising:

at least one primary lens having a front side and a rear side;

a magnet housing connected to a side of the primary lens, the magnet housing comprising a front surface and a rear surface;

at least one secondary lens comprising a front side and a rear side and designed to be worn in front of the primary lens;

an arm connected to the secondary lens and extending over the magnet housing to abut at least a portion of the rear surface of the housing;

a first magnet connected to one of the magnet housing and the arm; and

magnetic material attached to the other of the magnet housing and the arm in such a manner that the magnet and the magnetic material are attracted to each other and help to keep the secondary lens in place with respect to the primary lens.

52. Eyeglasses according to claim 51 wherein the magnetic material comprises a magnet.

53. Eyeglasses according to claim 51 wherein the magnet is a bar magnet having a horizontal axis.

54. Eyeglasses comprising: a first primary lens and a second primary lens each comprising a front side and a rear side;

a first magnet housing and a second magnet housing connected to a side of the first primary lens and the second primary lens respectively;

the first and second magnet housings each having a rear surface;

a first auxiliary lens and a second auxiliary lens each comprising a front side and a rear side and designed to be worn in front of the first and second primary lenses respectively;

first and second arms respectively connected to the first and second auxiliary lenses and extending to cover at least a portion of the rear surfaces of the first and second magnet housings;

a first magnet attached to one of the first magnet housing and the first arm;

a first magnetic material attached to the other of the first magnet housing and the first arm in such a manner that the first magnet and the first magnetic material are attracted to each other;

a second magnet attached to one of the second magnet housing and the second arm; and

a second magnetic material attached to the other of the second magnet housing and the second arm in such a manner that the second magnet and the second magnetic material are attracted to each other;

thereby helping to keep the first and second auxiliary lenses in place with respect to the first and second primary lenses.

55. Eyeglasses according to claim 54 wherein each of the first magnetic material and the second magnetic material comprises a magnet.

56. Eyeglasses according to claim 54 wherein each of the first magnets is a bar magnet having a horizontal axis.

57. Eyewear comprising:

a primary frame and an auxiliary frame being magnetically attachable to said primary frame, said primary frame comprising a primary bridge, said primary bridge connecting a first primary split rim and a second primary split rim, said first primary split rim encircling a first primary lens and said second primary split rim encircling a second primary lens, said first primary split rim comprising a first primary rim end and a second primary rim end and said second primary split rim comprising a third primary rim end and a fourth primary rim end;

said second primary rim end being attached to said first primary rim end through a first uniblock and said fourth primary rim end being attached to said third primary rim end through a second uniblock, said first uniblock comprising a first primary magnetic member and said second uniblock comprising a second primary magnetic member, said primary frame also comprising a first temple and a second temple, said first temple being hingedly connected to said first uniblock and said second temple being hingedly connected to said second uniblock;

said auxiliary frame comprising a first auxiliary lens and a second auxiliary lens, said

first auxiliary lens being positioned within a first auxiliary rim and said second auxiliary lens being positioned within a second auxiliary rim, an auxiliary bridge connecting said first auxiliary rim and said second auxiliary rim, a first auxiliary magnetic member being attached to said first auxiliary rim and a second auxiliary magnetic member being attached to said second auxiliary rim, said first primary magnetic member and said second primary magnetic member being capable of simultaneous magnetic attachment with said first auxiliary magnetic member and said second auxiliary magnetic member respectively.

58. The eyewear of claim 57, wherein said second primary rim end includes a first flange that is received within a first recess formed in said first uniblock and said fourth primary rim end includes a second flange that is received within a second recess formed in said second uniblock.

59. The eyewear of claim 58, wherein a first screw attaches said first flange to said first uniblock and a second screw attaches said second flange to said second uniblock.

60. The eyewear of claim 57, wherein said first uniblock comprises a first portion and a second portion, said first portion being connected to said first primary rim end and said second portion being connected to said second primary rim end, said first portion and said second portion being connected to close said first primary split rim, and wherein said second uniblock comprises a third portion and a fourth portion, said third portion being connected to said third primary rim end and said fourth portion being connected to said fourth primary rim end, said third portion and said fourth portion being connected to close said second primary split rim.

61. The eyewear of claim 60, wherein a first screw attaches said first portion to said second portion and a second screw attaches said third portion to said fourth portion.

62. The eyewear of claim 57, wherein said first temple is hingedly attached to a first endpiece that is connected to said first uniblock and said second temple is hingedly attached to a second endpiece that is connected to said second temple.

63. The eyewear of claim 57 further comprising a first hinge having a first hinge portion and a second hinge portion and a second hinge having a third hinge portion and a fourth hinge portion, said first hinge portion being secured to said first uniblock and said second hinge portion being secured to said first temple, said third hinge portion being secured to said second uniblock and said fourth hinge portion being secured to said second temple, said first hinge portion and said second hinge portion being moveably coupled together and said third hinge portion and said fourth hinge portion being moveably coupled together.

64. Eyewear comprising:

a primary frame and an auxiliary frame being magnetically attachable to said primary frame, said primary frame comprising a primary bridge, said primary bridge connecting a first primary rim and a second primary rim, said first primary rim securing a first primary lens and said second primary rim encircling a second primary lens, a first primary magnetic member and a second primary magnetic member being positioned along said first primary rim and said second primary rim respectively, said primary frame also comprising a first temple and a second temple, said first temple being hingedly connected to said first primary rim and said second temple being hingedly connected to said second rim;

said auxiliary frame comprising a first auxiliary lens and a second auxiliary lens, said first auxiliary lens being positioned within a first auxiliary split rim and said second auxiliary lens being positioned within a second auxiliary split rim, said first auxiliary split rim comprising a first auxiliary rim end and a second auxiliary rim end and said second auxiliary split rim comprising a third auxiliary rim end and a fourth auxiliary rim end, said second auxiliary rim end being attached to said first auxiliary rim end through a first uniblock and said fourth auxiliary rim end being attached to said third auxiliary rim end through a second uniblock, said first uniblock comprising a first auxiliary magnetic member and said second uniblock comprising a second auxiliary magnetic member, an auxiliary bridge connecting said first auxiliary split rim and said second auxiliary split rim;

said first primary magnetic member and said second primary magnetic member being capable of simultaneous magnetic attachment with said first auxiliary magnetic member and said

second auxiliary magnetic member respectively.

65. The eyewear of claim 64, wherein said auxiliary bridge is affixed to said first uniblock and said second uniblock such that said first auxiliary magnetic member and said second auxiliary magnetic member are generally interposed between said first auxiliary lens and said second auxiliary lens.

66. The eyewear of claim 64, wherein said second auxiliary rim end includes a first flange that is received within a first recess formed in said first uniblock and said fourth auxiliary rim end includes a second flange that is received within a second recess formed in said second uniblock.

67. The eyewear of claim 66, wherein a first screw attaches said first flange to said first uniblock and a second screw attaches said second flange to said second uniblock.

68. The eyewear of claim 66, wherein said auxiliary bridge is affixed to said first uniblock and said second uniblock such that said first auxiliary magnetic member and said second auxiliary magnetic member are generally interposed between said first auxiliary lens and said second auxiliary lens.

69. The eyewear of claim 64, wherein said first uniblock comprises a first portion and a second portion, said first portion being connected to said first auxiliary rim end and said second portion being connected to said second auxiliary rim end, said first portion and said second portion being connected to close said first auxiliary split rim, and wherein said second uniblock comprises a third portion and a fourth portion, said third portion being connected to said third auxiliary rim end and said fourth portion being connected to said fourth auxiliary rim end, said third portion and said fourth portion being connected to close said second auxiliary split rim.

70. The eyewear of claim 69, wherein a first screw attaches said first portion to said second portion and a second screw attaches said third portion to said fourth portion.

71. The eyewear of claim 69, wherein said auxiliary bridge is affixed to said first uniblock and said second uniblock such that said first auxiliary magnetic member and said second auxiliary magnetic member are generally interposed between said first auxiliary lens and said second auxiliary lens.

72. Eyewear comprising:

a primary frame and an auxiliary frame being magnetically attachable to said primary frame, said primary frame comprising a primary bridge, said primary bridge connecting a first primary split rim and a second primary split rim, said first primary split rim encircling a first primary lens and said second primary split rim encircling a second primary lens, said first primary split rim comprising a first primary rim end and a second primary rim end and said second primary split rim comprising a third primary rim end and a fourth primary rim end;

said second primary rim end being attached to said first primary rim end through a first closing block and said fourth primary rim end being attached to said third primary rim end through a second closing block;

a first uniblock being attached to said first closing block and a second uniblock being attached to said second closing block, said first uniblock comprising a first primary magnetic member and a first hinge portion, said second uniblock comprising a second primary magnetic member and a second hinge portion;

said primary frame also comprising a first temple and a second temple, said first temple including a third hinge portion and said second temple including a fourth hinge portion, said first hinge portion and said third hinge portion being moveably connected such that said first temple is hingedly connected to said first uniblock, said second hinge portion and said fourth hinge portion being moveably connected such that said second temple is hingedly connected to said second uniblock;

said auxiliary frame comprising a first auxiliary lens and a second auxiliary lens, said first auxiliary lens being positioned within a first auxiliary rim and said second auxiliary lens

being positioned within a second auxiliary rim, an auxiliary bridge connecting said first auxiliary rim and said second auxiliary rim, a first auxiliary magnetic member being attached to said first auxiliary rim and a second auxiliary magnetic member being attached to said second auxiliary rim, said first primary magnetic member and said second primary magnetic member being capable of simultaneous magnetic attachment with said first auxiliary magnetic member and said second auxiliary magnetic member respectively.

73. The eyewear of claim 72 further comprising a first endpiece and a second endpiece, said first endpiece extending over a first abutment between said first uniblock and said first closing block and said second endpiece extending over a second abutment between said second uniblock and said second closing block such that said first abutment and said second abutment are obscured from view when said eyewear are viewed from a direction normal to a plane defined through said primary lens and said second primary lens.

74. The eyewear of claim 72, wherein said first uniblock is removably attached to said first closing block and said second uniblock is removably attached to said second closing block.

75. Eyewear comprising:

a primary frame and an auxiliary frame being magnetically attachable to said primary frame, said primary frame comprising a primary bridge, said primary bridge connecting a first primary rim and a second primary rim, said first primary rim securing a first primary lens and said second primary rim securing a second primary lens;

a first uniblock being removably connected to said first primary lens and a second uniblock being removably connected to said second primary lens, said first uniblock comprising a first primary magnetic member and a first hinge portion, said second uniblock comprising a second primary magnetic member and a second hinge portion;

said primary frame also comprising a first temple and a second temple, said first temple including a third hinge portion and said second temple including a fourth hinge portion, said first hinge portion and said third hinge portion being moveably connected such that said first temple is hingedly connected to said first uniblock, said second hinge portion and said fourth hinge portion being moveably connected such that said second temple is hingedly connected to said second uniblock;

said auxiliary frame comprising a first auxiliary lens and a second auxiliary lens, said first auxiliary lens being secured to a first auxiliary rim and said second auxiliary lens being secured to a second auxiliary rim, an auxiliary bridge connecting said first auxiliary rim and said second auxiliary rim, a first auxiliary magnetic member being attached to said first auxiliary rim and a second auxiliary magnetic member being attached to said second auxiliary rim;

said first primary magnetic member and said second primary magnetic member being capable of simultaneous magnetic attachment with said first auxiliary magnetic member and said second auxiliary magnetic member respectively.

76. The eyewear of claim 75, wherein said first uniblock is removably connected to said first primary lens through said first primary rim and said second uniblock is removably connected to said second primary lens through said second primary rim.

77. The eyewear of claim 76 further comprising a first threaded fastener that removably attaches said first uniblock to said first primary rim and a second threaded fastener that removably attaches said second uniblock to said second primary rim.

78. The eyewear of claim 76, wherein said first primary rim includes a first recess and said first uniblock is removably received within said first recess and said second primary rim includes a second recess and said second uniblock is removably received within said second recess.

79. The eyewear of claim 78 further comprising a first threaded fastener that removably attaches said first uniblock to said first primary rim and a second threaded fastener that removably attaches said second uniblock to said second primary rim.

80. An eyeglass device comprising:

a primary spectacle frame for supporting primary lenses therein with the lenses defining a vertical plane, the primary spectacle frame including two side portions, each of the side portions having an extension extended therefrom for pivotally coupling a temple thereto and a first magnet secured to a rear side of each of the side portions of the primary spectacle frame; and

an auxiliary spectacle frame for supporting auxiliary lenses therein, and for disposing in front of the primary spectacle frame, the auxiliary spectacle frame including two auxiliary side portions, the auxiliary spectacle frame including two second magnets, each secured to one of the auxiliary side portions for respectively engaging the rear side of each of said side portions and positioning said magnets to cooperate so as to secure the auxiliary spectacle frame to the primary spectacle frame.

81. An eyeglass device as recited in Claim 80 wherein at least an end portion of one auxiliary side portion extends downward toward one of the side portions of the primary spectacle frame for hooking on the primary spectacle frame such that the auxiliary spectacle frame is further stably supported and secured to the primary spectacle frame.

82. An eyeglass device comprising:

a primary spectacle frame for supporting primary lenses therein;

the primary spectacle frame including two side portions, each side portion having an extension extended therefrom for pivotally coupling a temple thereto; and

the primary spectacle frame including two first magnetic members, each secured to one of the side portions of the primary spectacle frame; and

an auxiliary spectacle frame for supporting auxiliary lenses therein, and for disposing in front of the primary spectacle frame, the auxiliary spectacle frame including two auxiliary side portions, wherein the auxiliary spectacle frame further includes two second magnetic members, each secured to one of the auxiliary side portions to engage a rear face of said side portions of said primary frame, for coupling with a respective one of the first magnetic members so as to secure the auxiliary spectacle frame to the primary spectacle frame, the horizontal position being substantially perpendicular to a front surface of the primary spectacle frame.

83. An eyeglass device as recited in Claim 82 wherein the second magnetic members are magnets.

84. An eyeglass device as recited in Claim 82 wherein the first magnetic members are magnets.

85. An eyeglass device as recited in Claim 82 wherein the first and the second magnetic members are magnets.

86. An eyeglass device comprising:

a primary spectacle frame having two side portion extensions, each of said extensions having a front side, a rear side and a first magnetic member secured to said rear side,

an auxiliary spectacle frame including two side portions each having an arm extended therefrom for extending toward and beyond said rear side to overlap said rear side, each of said arms containing a second magnetic member, and

said arms and said first and second magnetic members cooperating to stably support said auxiliary spectacle frame on said primary spectacle frame.

87. An eyeglass device comprising:

a primary spectacle frame for supporting primary lenses therein, said primary spectacle frame including two side portions each having an extension extended therefrom for pivotally coupling a temple, each of said extensions also including an outer side, an inner side, and a top side with a projection secured to said inner side, each of said projections respectively securing a first magnetic member, and

an auxiliary spectacle frame for supporting auxiliary lenses therein, said auxiliary spectacle frame including two side portions each having an arm extended therefrom, said auxiliary spectacle frame further including a pair of second magnetic members secured to said arms respectively for engaging said first magnetic members of said primary spectacle frame, each of said arms adapted to extend over one of said top sides and across said rear side to inhibit removal of said auxiliary spectacle frame.

88. An eyeglass device comprising:

a primary spectacle frame having two side portion extensions, each of said extensions having a front side and a rear side with a first magnetic member secured to said rear side, and

an auxiliary spectacle frame including two side portions, each of said side portions having an arm extended therefrom for extending beyond and across said rear side, said arms containing corresponding second magnetic members, said arms and said first and second magnetic members supporting said auxiliary spectacle frame on said primary spectacle frame.

89. An eyeglass device comprising:

a primary spectacle frame having two side portion extensions, each of said extensions extending laterally away from one another and rearwardly of said frame, each of said extensions having a top side, a front side and a rear side with a first magnetic member secured to said rear side, and

an auxiliary spectacle frame including two side portions each having an arm extending from said front side over said top side and across said rear side, said arms containing corresponding second magnetic members, said arms and said first and second magnetic members supporting said auxiliary spectacle frame on said primary spectacle frame.

90. An eyeglass device comprising:

a primary spectacle frame having two side portions, said side portions each having an extension extending rearwardly therefrom having a top side and a rear side with a first magnetic member secured thereto, and

an auxiliary spectacle frame including two arms for extending over a corresponding top side of said extensions, said arms respectively containing second magnetic members for cooperation with said first magnetic members and downwardly extended end portions for extending across said rear side of said auxiliary spectacle frame, said arms and said first and second magnetic members supporting said auxiliary spectacle frame on said primary spectacle frame.

91. An eyeglass device comprising:

a primary spectacle frame for supporting primary lenses therein having two side portion extensions, said side portion extensions each having a top side and a rear side thereof, each of said extensions securing a first magnetic member, and

an auxiliary spectacle frame including two arms for extending over a corresponding top side of said side portion extensions, each of said arms having downwardly extended end portions extending across said rear side and having second magnetic members secured thereto, at least said arms and said first and second magnetic members supporting said auxiliary spectacle frame on said primary spectacle frame.

92. An eyeglass device comprising:

a primary spectacle frame for supporting primary lenses therein having two side portions, said side portions each having an extension with a top side and a rear side with a first magnetic member secured to said rear side, and

an auxiliary spectacle frame including two arms for extending over and engaging a corresponding top side of said extensions, said arms respectively containing downwardly extended portions to overlie said rear side with second magnetic members secured thereto, said arms and said first and second magnetic members cooperating to support said auxiliary spectacle frame on said primary spectacle frame.

93. An eyeglass device comprising:

a primary spectacle frame for supporting primary lenses therein having an extension at each side for pivotal coupling to a temple, each of said extensions having a front side, a rear side, a top side and a projection attached to said rear side, each of said extensions including a first magnetic member secured therein, and

an auxiliary spectacle frame for supporting auxiliary lenses therein and including two side portions, each of said side portions having an arm extended therefrom and adapted to extend from said front side to beyond and across said rear side of said extension of said primary spectacle frame, said arms each containing corresponding second magnetic members, said arms locating each of said second magnetic members in an engagement position to engage respective

rear sides of said extensions and cooperate with first magnetic members of said primary spectacle frame and inhibit relative movement therebetween.

94. An eyeglass device comprising:

a primary spectacle frame for supporting primary lenses therein and having two side portions, an extension extending rearwardly from each of said side portions and having a front side, a rear side, a top side, and a rear end, each of said rear ends pivotally coupling a temple configured to conform to a user at a distal end thereof, each of said extensions of said primary spectacle frame further having a pair of first magnetic members respectively secured adjacent each of said rear sides, said first magnetic members capable of engaging second magnetic members of an auxiliary spectacle frame.

95. An eyeglass device comprising:

an auxiliary spectacle frame for supporting auxiliary lenses therein, said frame including a front side, a rear side, and oppositely positioned side portions, each of said side portions having an arm extended rearwardly therefrom, each of said arms having a downwardly directed free end for securing a magnetic member, and a pair of magnetic members respectively secured in the free ends of said arms, said arms and said pair of magnetic members adapted to extend across respective side portions of a primary spectacle frame so that said pair of magnetic members can vertically engage corresponding magnetic members on a primary spectacle frame.

96. An eyeglass device comprising:

an auxiliary spectacle frame for supporting auxiliary lenses therein, said frame including a front side, a rear side, and oppositely positioned side portions, each of said side portions having an arm extended therefrom, each of said arms having a rearwardly directed portion terminating in a downwardly directed free end for securing a magnetic member, a pair of magnetic members respectively located at said free ends of said arms, said arms and said pair of magnetic members adapted to extend across respective side portions of a primary spectacle frame so that said pair of magnetic members can engage corresponding magnetic members on a primary spectacle frame.

97. An eyeglass device comprising:

a primary spectacle frame having two side portions each having an extension extending therefrom and adapted to pivotally couple a temple thereto, said extensions each having a front side, a rear side, a top side and a projection extending from said rear side, and each of said projections securing a first magnetic member secured adjacent said rear side, and

an auxiliary spectacle frame including two side portions each having an arm extended therefrom for extending over said top side and across said rear side, said arms containing corresponding second magnetic members, said arms with said second magnetic members engaging said first magnetic members thereby securing said auxiliary frame to said primary spectacle frame to inhibit said auxiliary spectacle frame from moving downward relative to and disengaging from said primary spectacle frame.

98. The eyeglass device according to claim 86, wherein said first and second magnetic members are magnets.

99. The eyeglass device according to claim 87, wherein said first and second magnetic members are magnets.

100. An eyeglass device, comprising:

a primary spectacle frame for supporting primary lenses therein;

a pair of extensions mounted to said primary spectacle frame at laterally spaced locations and each projecting toward a wearer when the eyeglass device is worn;

a first pair of magnetic members, each affixed adjacent a rear side of said extensions so as to be concealed by said extensions when said eyeglass device is worn, said first pair of magnetic members each having a rearwardly directed first surface;

an auxiliary spectacle frame for supporting auxiliary lenses therein;

a pair of spaced apart arms mounted to said auxiliary spectacle frame and projecting toward the wearer when the eyeglass device is worn and across said rearwardly directed first surface; and

a second pair of magnetic members, each affixed to said pair of arms, said second pair of magnetic members each having a second surface, said auxiliary spectacle frame capable of being supported by said primary spectacle frame by mounting said second pair of magnetic members to said first pair of magnetic members, said first and second surfaces being oppositely directed so that said surfaces are juxtaposed.

101. An eyeglass device according to claim 100 wherein said auxiliary frame includes an abutment surface for engagement with an oppositely directed surface on said primary frame to inhibit relative movement therebetween.

102. An eyeglass device according to claim 101 wherein said abutment surface is provided on each of said arms on said auxiliary frame.

103. An eyeglass device according to claim 101 wherein said extensions are located adjacent respective ones of said arms.

104. An eyeglass device according to claim 103 wherein said auxiliary frame includes an abutment surface for engagement with an oppositely directed surface on said primary frame to inhibit relative movement therebetween.

105. An eyeglass device comprising:

a primary spectacle frame having two side portions, said side portions each having an extension extending rearwardly therefrom with a top side and a rear side with a first magnetic member secured thereto, and

an auxiliary spectacle frame including two arms for extending over a corresponding top side of said extensions, said arms having downwardly extended end portions containing second magnetic members for cooperation with said first magnetic members, extending across said rear sides for said arms and said first and second magnetic members supporting said auxiliary spectacle frame on said primary spectacle frame, wherein at least one of said first magnetic members and said second magnetic members are magnets.

106. An eyeglass device comprising:

a primary spectacle frame having two side portion extensions, each of said extensions having a front side, a rear side and a first magnetic member secured to said rear side,

an auxiliary spectacle frame including two side portions each having an arm extended therefrom and traversing said extension from said front side to said rear side and across said rear side, each of said arms containing a second magnetic member, and

said first and second magnetic members engaging one another to support said auxiliary spectacle frame on said primary spectacle frame.

107. An eyeglass device comprising:

a primary spectacle frame having two side portion extensions, each of said extensions having a front side, a rear side and a first magnetic member secured to said rear side,

an auxiliary spectacle frame including two side portions each having an arm extended therefrom, each of said arms containing a second magnetic member, said arms extending across said extension from said front side to said rear side, each of said arms having an end portion containing a second magnetic member and extending across said rear side and

said arms and said first and second magnetic members thereby stably supporting said auxiliary spectacle frame on said primary spectacle frame to inhibit removal therefrom.

108. An eyeglass device comprising:

a primary spectacle frame having two side portions, each of said portions having an extension with a front side, a rear side and a first magnetic member secured adjacent to said rear side,

an auxiliary spectacle frame including two side portions each having an arm extended therefrom, each of said arms containing a second magnetic member at a distal portion thereof, said arms extending across a respective extension from said front side to said rear side with said distal portion extending across said rear side so that said first and second magnetic members engage one another whereby said auxiliary spectacle frame is supported by said primary spectacle frame.

109. Eyewear comprising a primary frame and an auxiliary frame adapted to be superimposed over a forward portion of said primary frame, said primary frame comprising a first lens and a second lens, said auxiliary frame comprising a third lens and a fourth lens, a first attachment housing extending from said first lens, a second attachment housing extending from the second lens, a third attachment housing extending from the third lens, a fourth attachment housing extending from the fourth lens, said third attachment housing extending rearward to abut a portion of said first attachment housing, said fourth attachment housing extending rearward to abut a portion of said second attachment housing, a first magnetic securing member supported by said first attachment housing and a second magnetic securing member supported by said second attachment housing, said first magnetic securing member and said second magnetic securing member magnetically engaging with at least a portion of said third attachment housing and at least a portion of said fourth attachment housing such that said auxiliary frame is secured in position relative to said primary frame.

110. The eyewear of Claim 109, wherein each of said first and second magnetic securing members is a magnet.

111. The eyewear of Claim 110, wherein said third and fourth attachment housings comprise a ferromagnetic material.

112. The eyewear of Claim 110, wherein said third and fourth attachment housings comprise magnets.

113. The eyewear of Claim 110, wherein said magnet comprises a generally horizontal axis and said magnet is exposed on a front surface of said first attachment housing.

114. The eyewear of Claim 110, wherein said magnet comprises a generally horizontal axis and said magnet is exposed on a rear surface of said first attachment housing.

115. The eyewear of Claim 110, wherein said magnet comprises a generally vertical axis and said

magnet is exposed on a top surface of said first attachment housing.

116. The eyewear of Claim 110, wherein said magnet comprises a generally vertical axis and said magnet is exposed on a bottom surface of said first attachment housing.

117. The eyewear of Claim 109, wherein said first attachment housing comprises at least a portion of a closing block.

118. The eyewear of Claim 117, wherein said first attachment housing comprises a recess that receives a flange of said closing block.

119. The eyewear of Claim 117, wherein said first attachment housing is split to form said closing block.

120. The eyewear of Claim 119, wherein said first magnetic securing member is a magnet and said magnet extends through both portions of said split attachment housing.

121. The eyewear of Claim 117 further comprising a bridge that spans said first attachment housing and said second attachment housing.

122. The eyewear of Claim 121, wherein said first attachment housing comprises an endpiece.

123. The eyewear of Claim 117, wherein said first attachment housing comprises an endpiece.

124. The eyewear of Claim 123, wherein said first attachment housing comprises at least a portion of a hinge.

125. The eyewear of Claim 109, wherein said first attachment housing comprises an endpiece.

126. The eyewear of Claim 122, wherein said first attachment housing comprises at least a portion of a hinge.

127. The eyewear of Claim 109, wherein said first attachment housing comprises a hinge.

128. The eyewear of Claim 109, wherein said third attachment housing abuts a rear surface of said first attachment housing when said auxiliary frame is mounted to said primary frame.

129. The eyewear of Claim 109, wherein said first attachment housing is removably attached to an endpiece.

130. The eyewear of Claim 109, wherein said first attachment housing is removably attached to said primary frame.

131. The eyewear of Claim 109, wherein a closing block is formed separate from said first attachment housing.

132. The eyewear of Claim 109, wherein said primary frame has at least one recess that receives said first attachment housing.

133. The eyewear of Claim 132, wherein said primary frame comprises an acetate component.

134. The eyewear of Claim 132, wherein said first attachment housing comprises a blind hole that receives a threaded fastener to secure said first attachment housing to said primary frame.

135. The eyewear of Claim 134, wherein said blind hole is formed with a protrusion extending from said first attachment housing.

136. The eyewear of Claim 135, wherein said protrusion is cylindrical.

137. Eyewear comprising a first lens, a second lens, a bridge connecting said first lens to said second lens, a first uniblock connected to said first lens and a second uniblock connected to said second lens, a first magnetic member disposed within a portion of said first uniblock and a second magnetic member disposed within a portion of said second uniblock, a first rim extending at least part way around a circumference of said first lens and having a first end and a second end, a second rim extending at least part way around a circumference of said second lens and having a third end and a fourth end, a first closing block connecting said first end and said second end and being at least partially integrally formed with said first uniblock and a second closing block connecting said third end and said fourth end and being at least partially integrally formed with said second uniblock.

138. The eyewear of Claim 137, wherein said first closing block comprises a portion of said first uniblock and a first flange and said second closing block comprises a portion of said second uniblock and a second flange.

139. The eyewear of Claim 138, wherein said first flange is received within a recess formed in said first uniblock and said second flange is received within a recess formed in said second uniblock.

140. The eyewear of Claim 139, wherein said recesses formed in said first and second uniblocks are formed on a lower surface of each of said first and second uniblocks.

141. The eyewear of Claim 137, wherein said first uniblock is formed in a first upper portion and a first lower portion and said second uniblock is formed in a second upper portion and a second lower portion, said first upper portion being connected to said first end, said first lower portion being connected to said second end, said second upper portion being connected to said third end, said second lower portion being connected to said fourth end.

142. The eyewear of Claim 141, wherein said first upper portion and said first lower portion are separated by a generally horizontally extending plane.

143. The eyewear of Claim 141, wherein said first upper portion and said first lower portion and said second upper portion and said second lower portion are separated by a generally horizontally extending plane.

144. The eyewear of Claim 137, wherein said first magnetic member is exposed through a lower surface of said first uniblock and said second magnetic member is exposed through a lower surface of said second uniblock.

145. The eyewear of Claim 137, wherein said first magnetic member is exposed through an upper surface of said first uniblock and said second magnetic member is exposed through an upper surface of said second uniblock.

146. The eyewear of Claim 137, wherein said first magnetic member is exposed through a front surface of said first uniblock and said second magnetic member is exposed through a front surface of said second uniblock.

147. The eyewear of Claim 137, wherein said first magnetic member is exposed through a rear surface of said first uniblock and said second magnetic member is exposed through a rear surface of said second uniblock.

148. The eyewear of Claim 137 further comprising a first temple hingedly connected to said first uniblock and a second temple hingedly connected to said second uniblock.

149. The eyewear of Claim 148, wherein said first uniblock comprises a first integral hinge portion and said second uniblock comprises a second integral hinge portion, said first temple being connected to said first integral hinge portion and said second temple being connected to said second integral hinge portion.

150. The eyewear of Claim 137 further comprising a primary frame, said first magnetic member and said second magnetic member removably connecting an auxiliary frame to said primary frame.

151. The eyewear of Claim 150, wherein said first magnetic member is exposed through a front surface of said first uniblock.

152. The eyewear of Claim 150, wherein said first magnetic member is exposed through a bottom surface of said first unblock.

153. The eyewear of Claim 150, wherein said first magnetic member is exposed through a rear surface of said first uniblock.

154. The eyewear of Claim 150, wherein said first magnetic member is exposed through a top surface of said first uniblock.

155. The eyewear of Claim 137 further comprising an auxiliary frame, said first magnetic member and said second magnetic member removably connecting said auxiliary frame to a primary frame.

156. The eyewear of Claim 155, wherein said first magnetic member is exposed through a front surface of said first uniblock.

157. The eyewear of Claim 155, wherein said first magnetic member is exposed through a bottom surface of said first uniblock.

158. The eyewear of Claim 155, wherein said first magnetic member is exposed through a rear surface of said first uniblock.

159. The eyewear of Claim 155, wherein said first magnetic member is exposed through a top surface of said first uniblock.

160. The eyewear of Claim 137, wherein each of said first and second magnetic members comprises a

magnet.

161. Eyewear comprising a first lens comprising a front side and a rear side, a temple extending rearward from a side of said first lens, an attachment housing connected to said first lens and extending to a side of said first lens different from said temple, said attachment housing comprising a mounting surface, at least one second lens comprising a front side and a rear side and designed to be worn in front of said first lens, an arm connected to said second lens and extending to a side of said second lens, said arm extending rearward over said attachment housing to abut at least a portion of said mounting surface of said attachment housing, a first magnet connected to one of said attachment housing and said arm and magnetic material attached to the other of said attachment housing and said arm in such a manner that the magnet and the magnetic material are attracted to each other and help to keep the second lens in place with respect to the first lens.

162. The eyewear of Claim 161, wherein said magnet has an axis that extends generally vertically.

163. The eyewear of Claim 161, wherein said magnetic material is a second magnet.

164. The eyewear of Claim 161 further comprising a bridge extending from a side of said primary lens, said bridge extending from the same side of said primary lens as said attachment housing.

165. The eyewear of Claim 161 further comprising a rim extending at least part way around said first lens, a flange being secured to said rim and said attachment housing comprising a recess that accommodates said flange.

166. The eyewear of Claim 165, wherein said recess is formed on a lower surface of said attachment housing.

167. The eyewear of Claim 166 further comprising a threaded fastener that extends upward through said flange and into said attachment housing.

PATENT
6814/53278

SPECTACLES UNIBLOCK

BACKGROUND OF THE INVENTION

Field of the Invention

This invention relates to eyeglasses and more particularly to eyeglasses having a novel and highly effective uniblock of which a portion forms a housing for a magnet or other securing means adapted to secure an auxiliary lens (with or without a frame) in place over or behind a primary lens (with or without a frame).

Description of the Prior Art

Eyeglasses equipped with one or more magnets adapted to secure an auxiliary lens in superimposed relation to a primary lens are known and disclosed for example in a U.S. patent to Chao No. 5,568,207. That patent discloses eyeglasses including primary and auxiliary frames each supporting lenses. The primary frame includes two "legs" respectively connected to two side extensions and includes two magnetic members secured in the legs. The auxiliary frame includes two legs each having a magnetic member engageable with the magnetic members of the primary frame to secure the frames together and to prevent the auxiliary frame from moving downward relative to the primary frame.

An earlier disclosure of eyeglasses having magnets for securing auxiliary lenses to primary lenses is found in a U.S. patent to Meeker No. 4,070,103. The Meeker patent discloses an eyeglasses frame that includes a magnetic material secured to a peripheral portion thereof for facilitating attachment of an auxiliary lens rim cover to the frame. The lens rim cover also includes a magnetic strip engageable with the magnetic material of the frame.

A U.S. patent to Sadler No. 5,416,537 discloses first magnetic members respectively secured to temporal portions of a primary frame and second magnetic members secured to corresponding temporal portions of auxiliary lenses.

In eyeglasses constructed in accordance with the prior art, the piecemeal assembly of closing block, end piece, magnet housing and temple-piece hinge produces a structure that is unduly strung out or elongate, and the housing for the magnet is bulky and unsightly. Since conventional eyeglasses of this type require soldering, they are also labor-intensive and expensive to manufacture, and the resulting structure is weakened by the cycles of heating and cooling, so that the frames do not hold their shape and are more likely to break. In addition, the need to assemble so many large pieces in conventional eyeglasses limits the design possibilities.

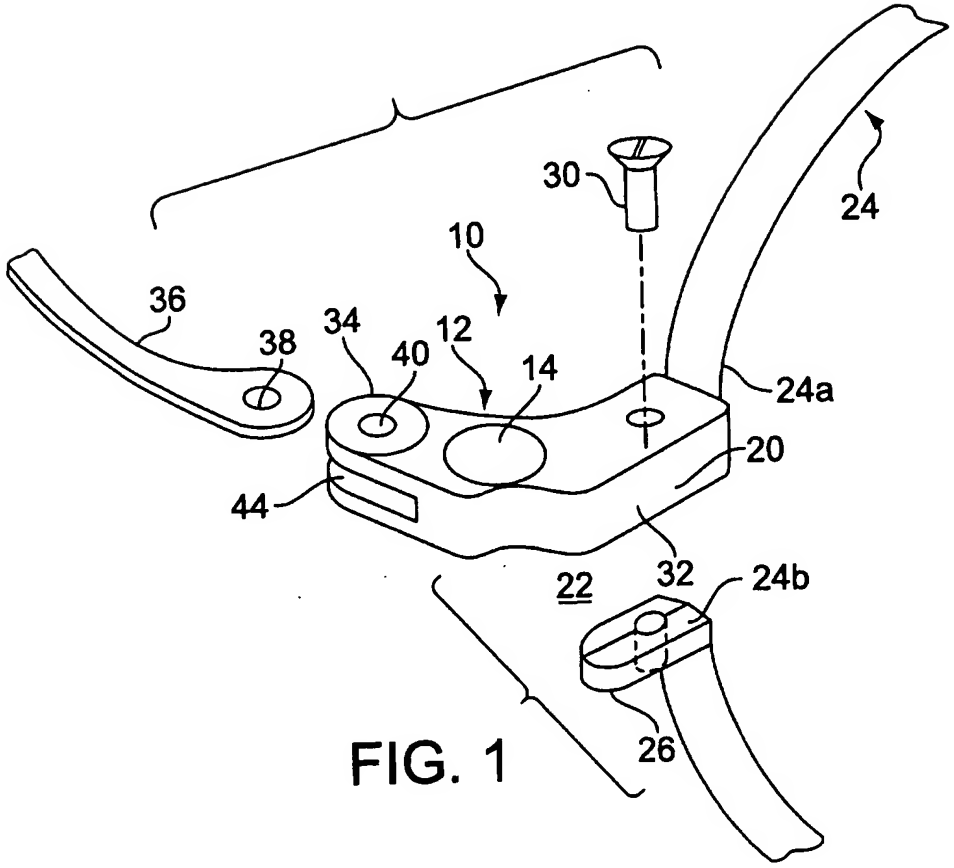


FIG. 1

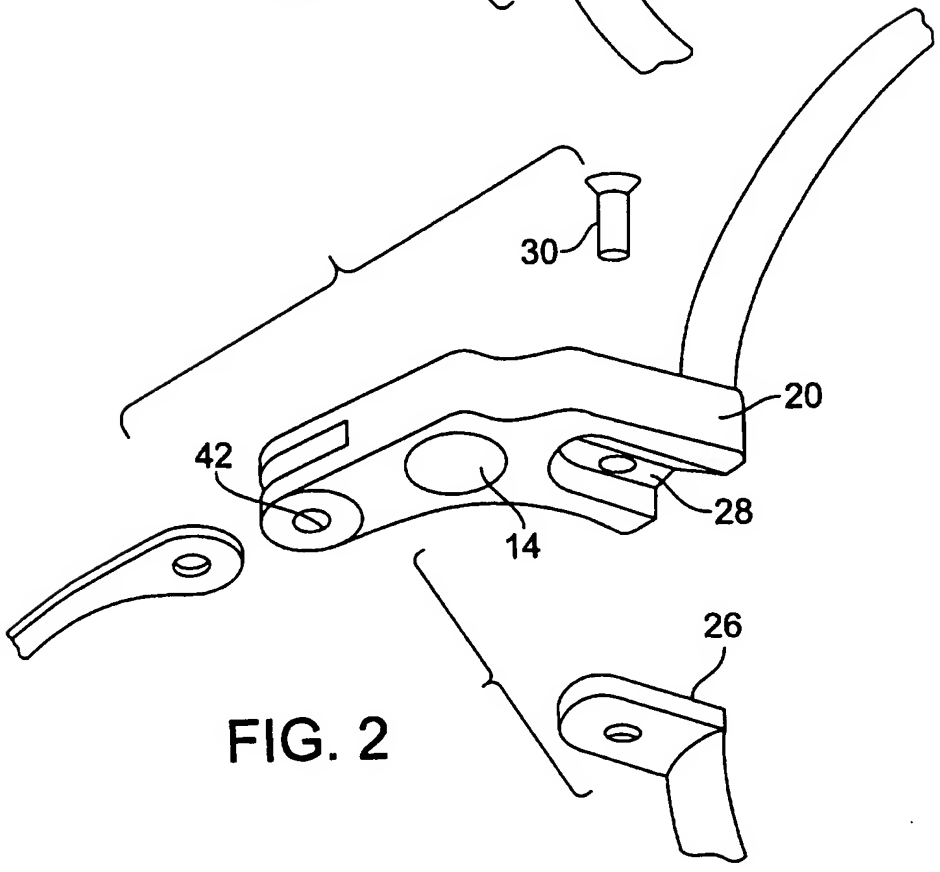


FIG. 2

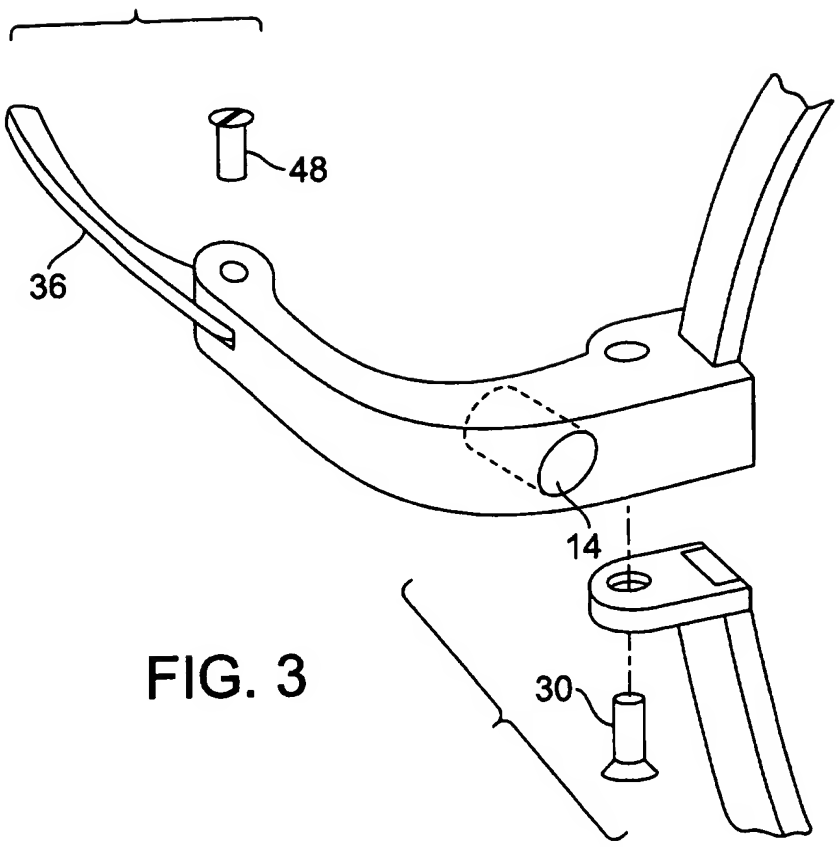


FIG. 3

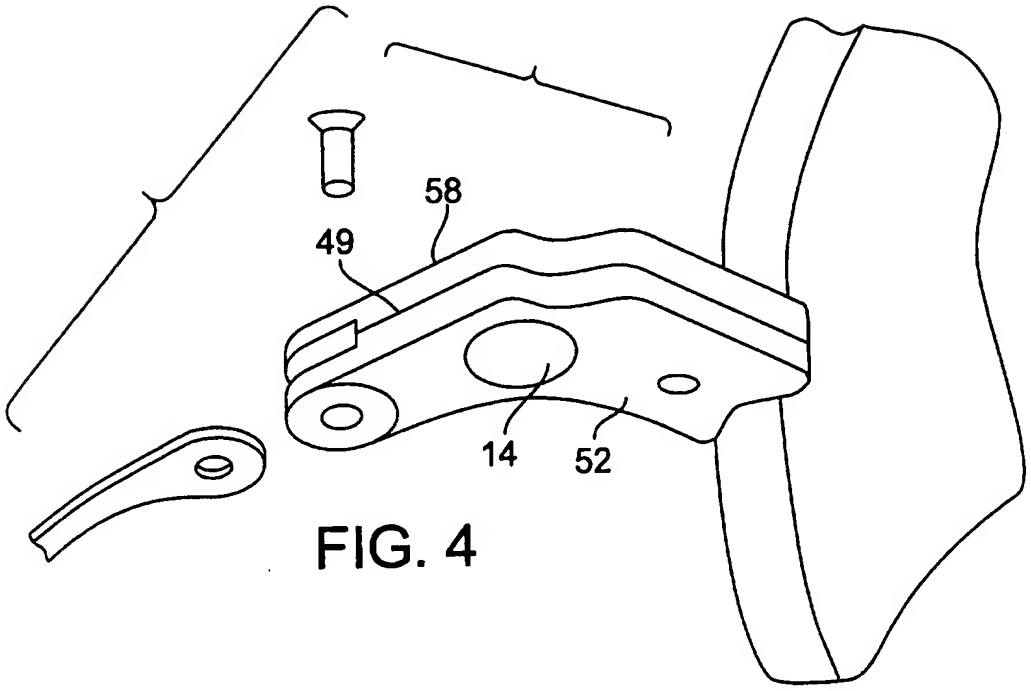


FIG. 4

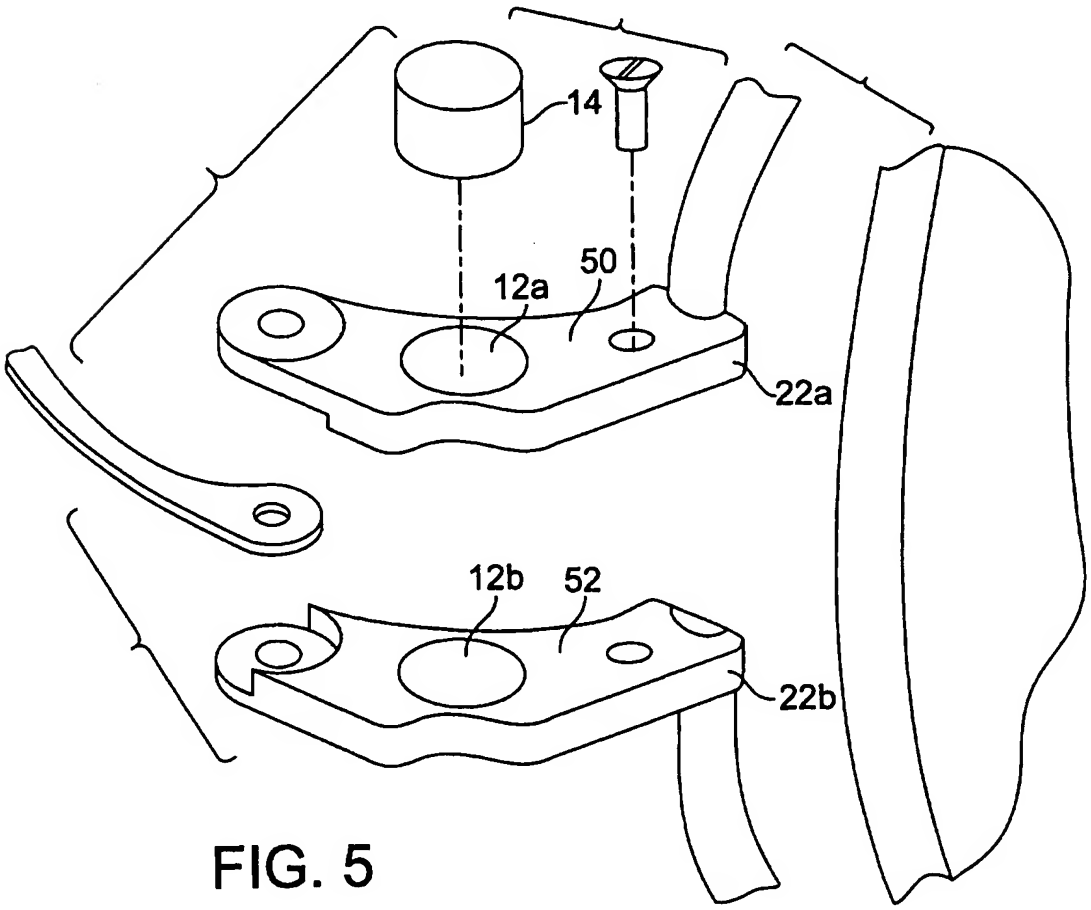


FIG. 5

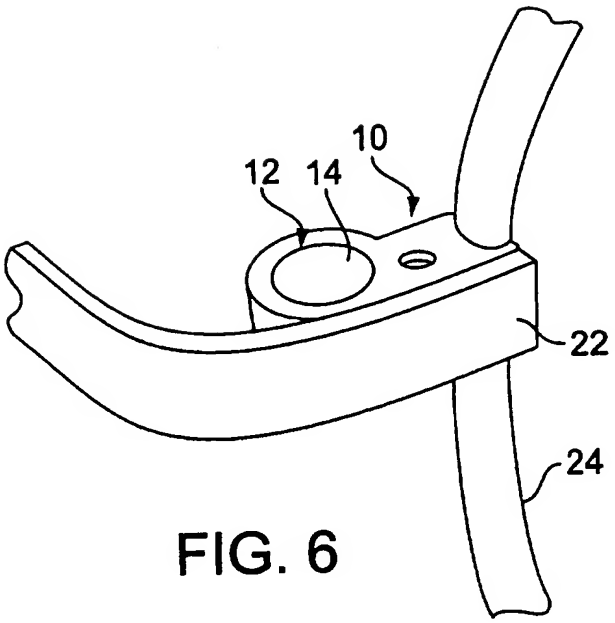


FIG. 6

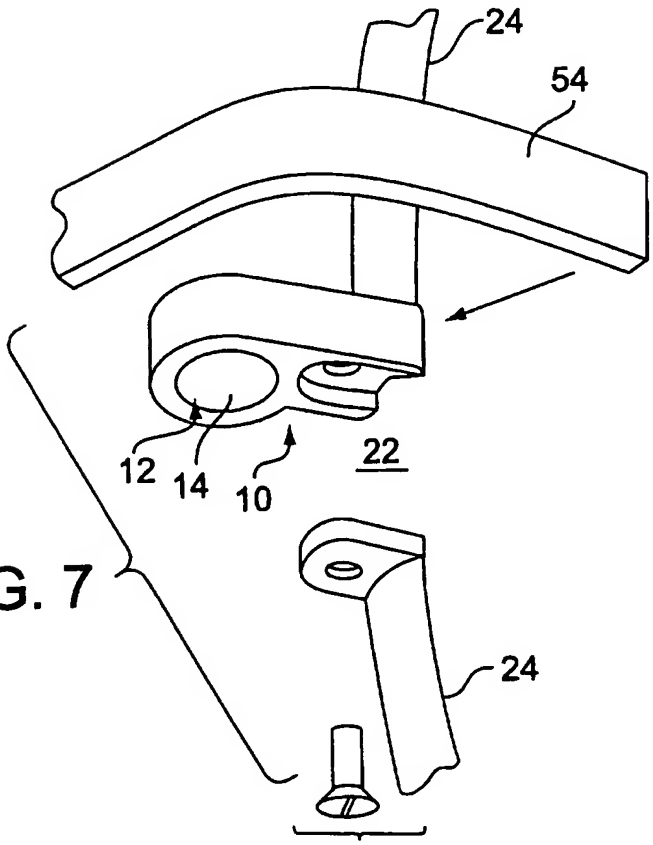


FIG. 7

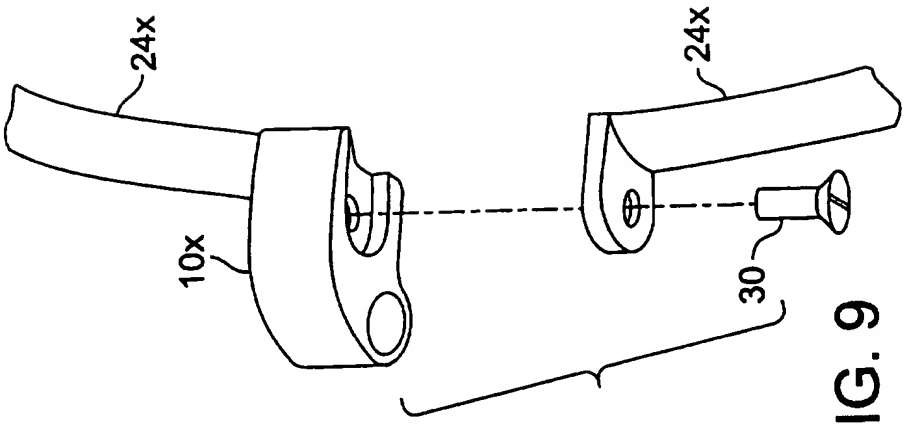


FIG. 9

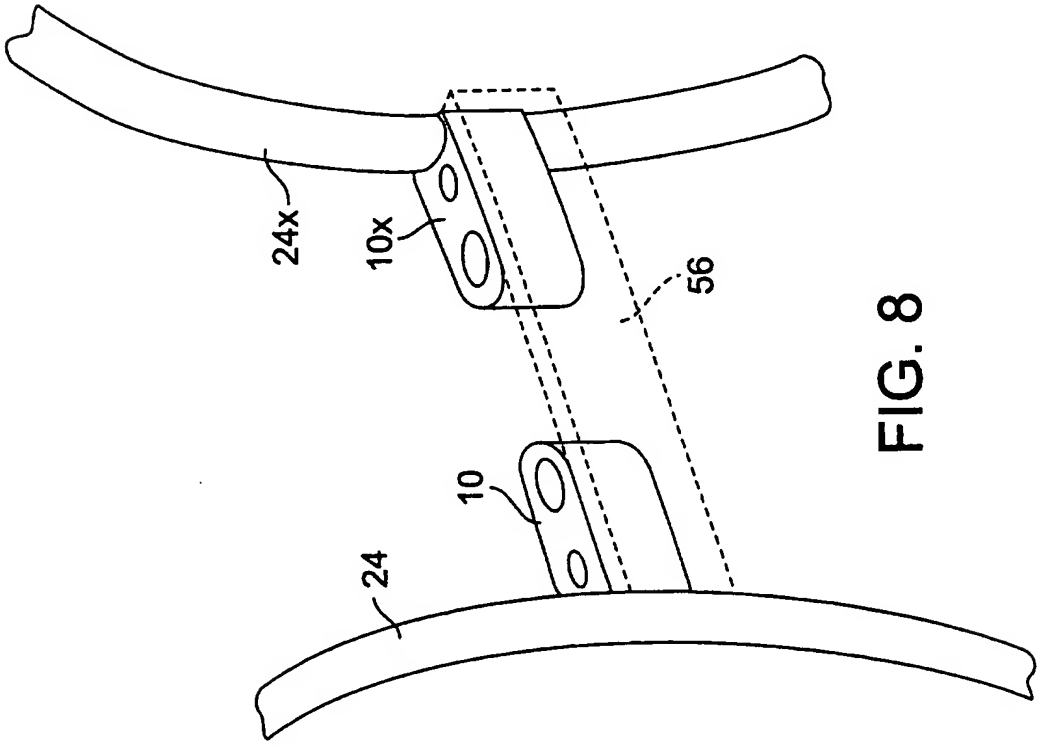


FIG. 8

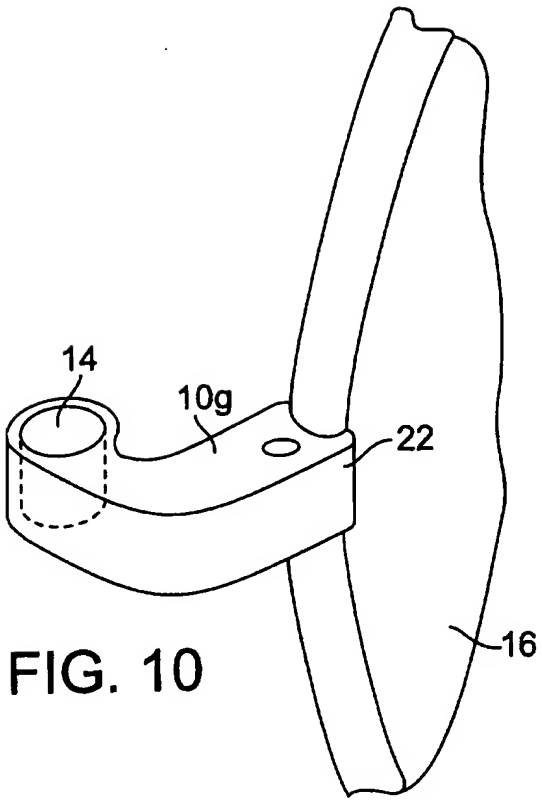


FIG. 10

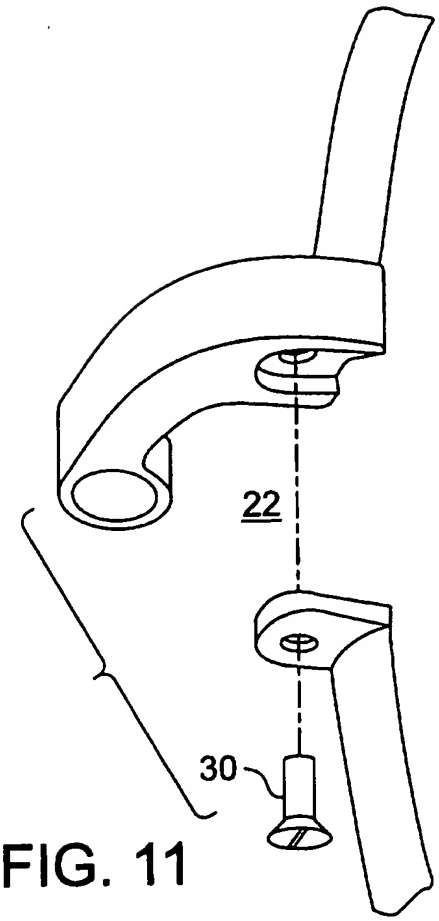


FIG. 11

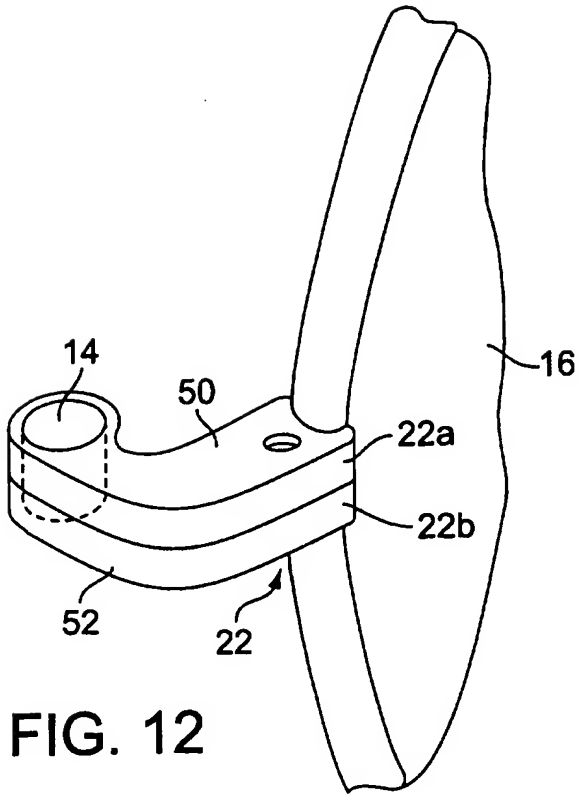


FIG. 12

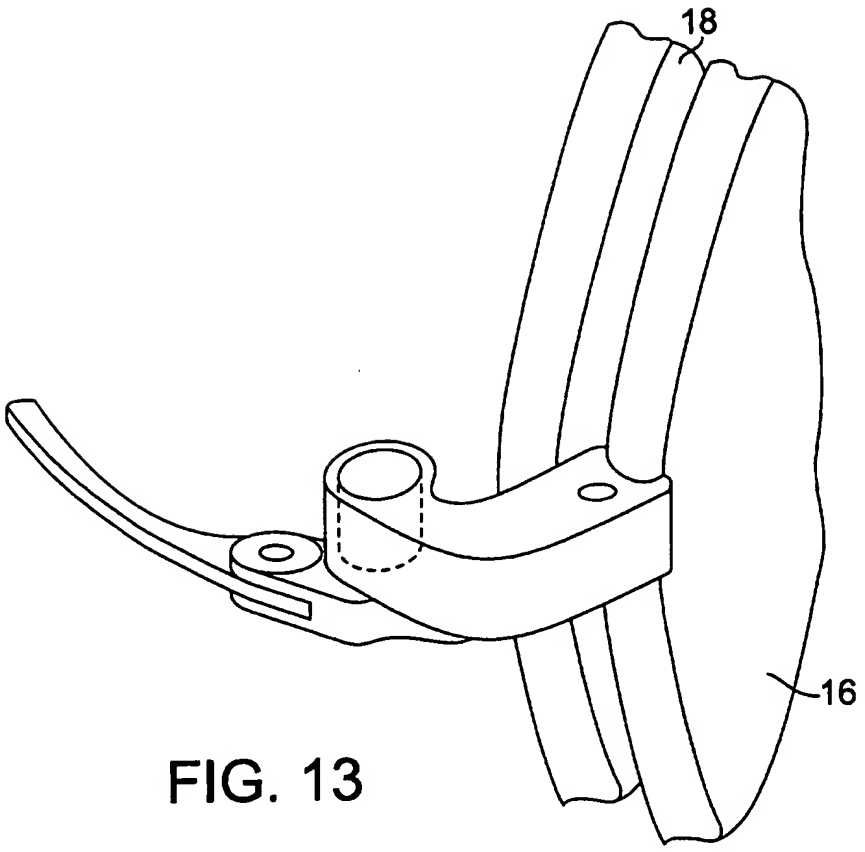


FIG. 13

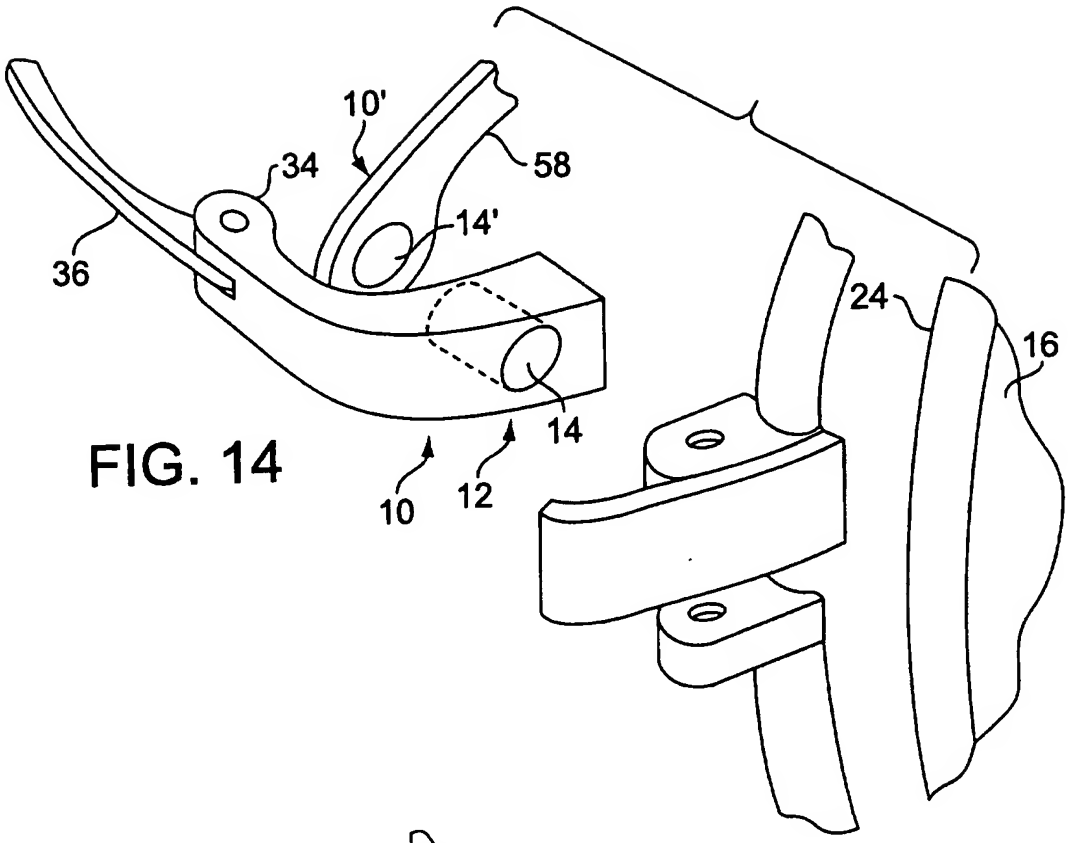


FIG. 14

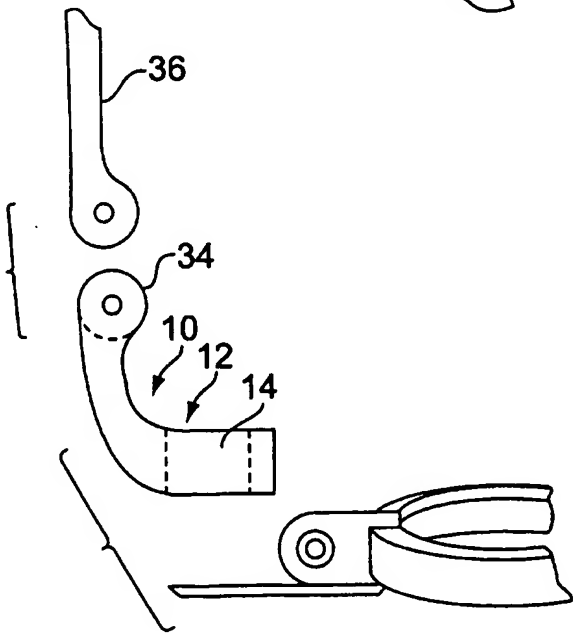


FIG. 15

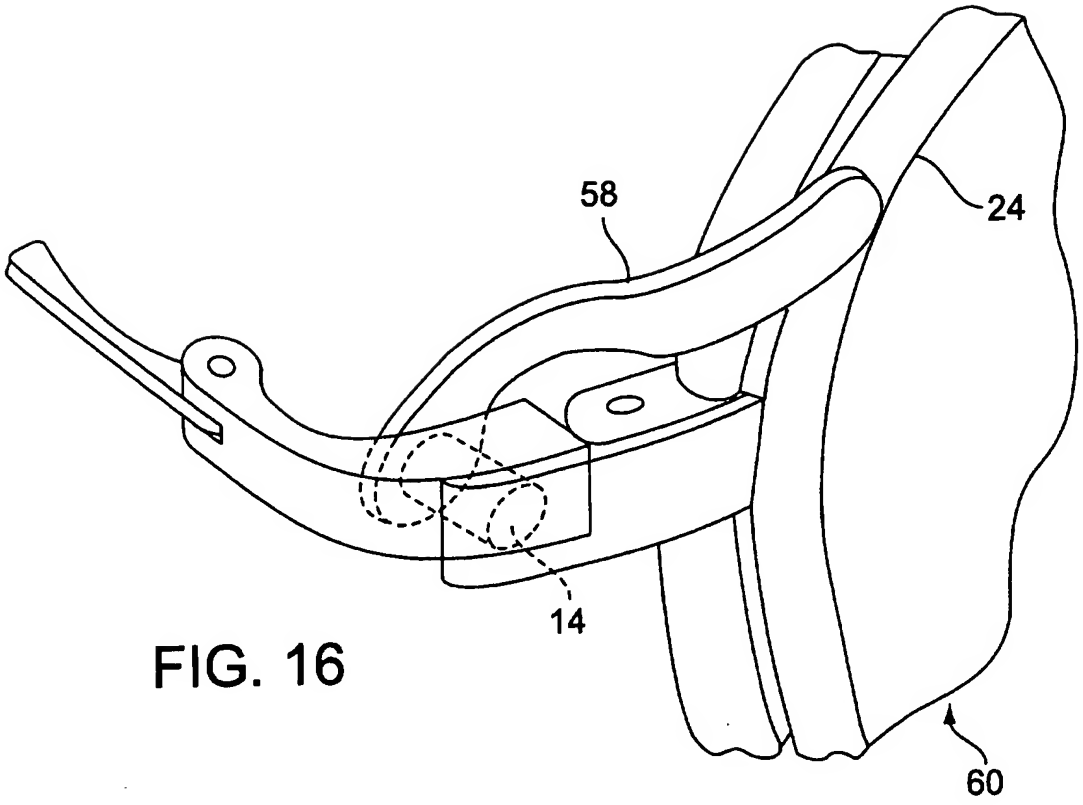


FIG. 16

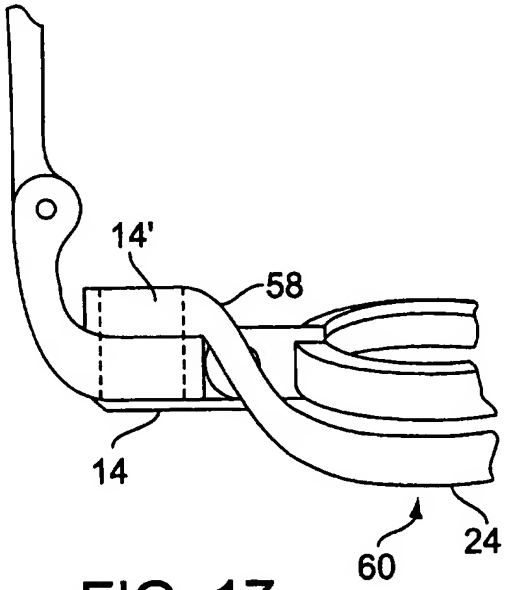


FIG. 17

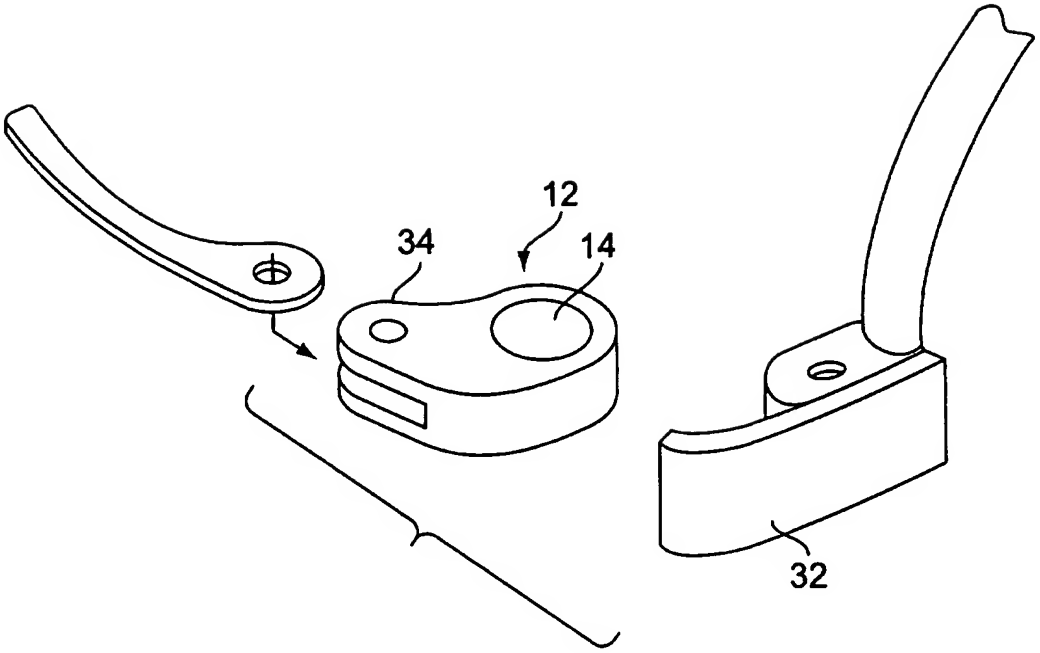


FIG. 18

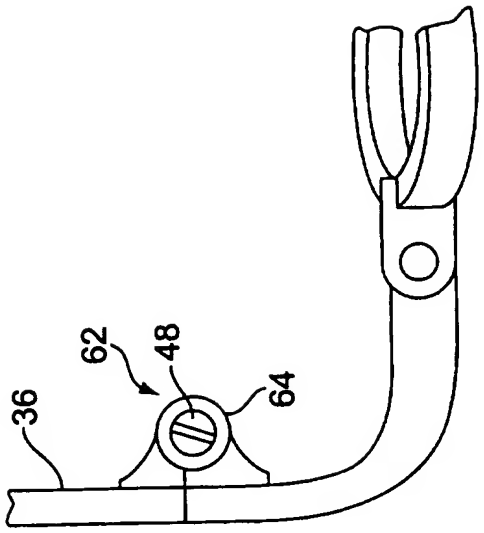


FIG. 20

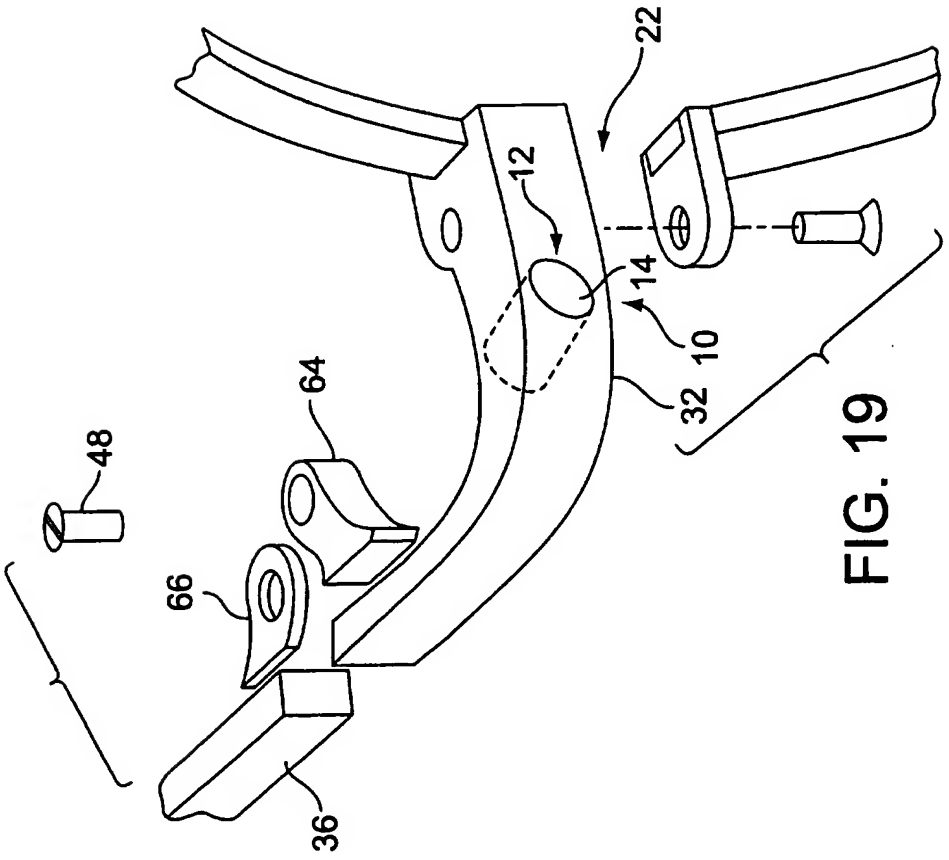


FIG. 19

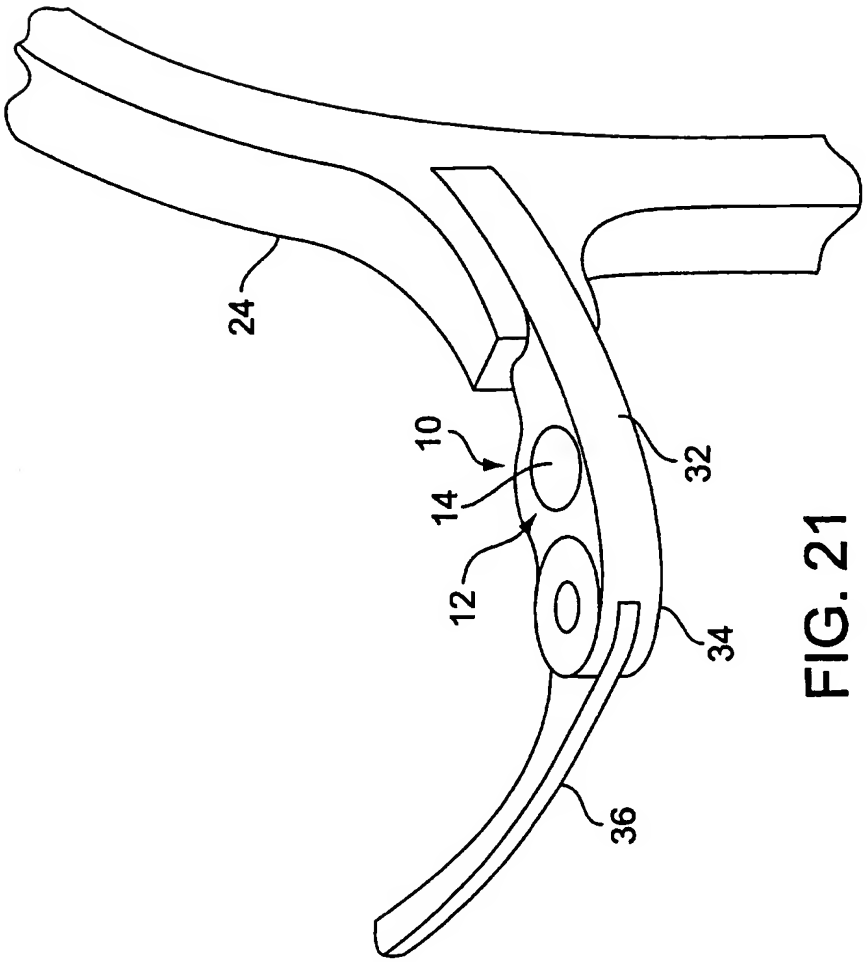


FIG. 21

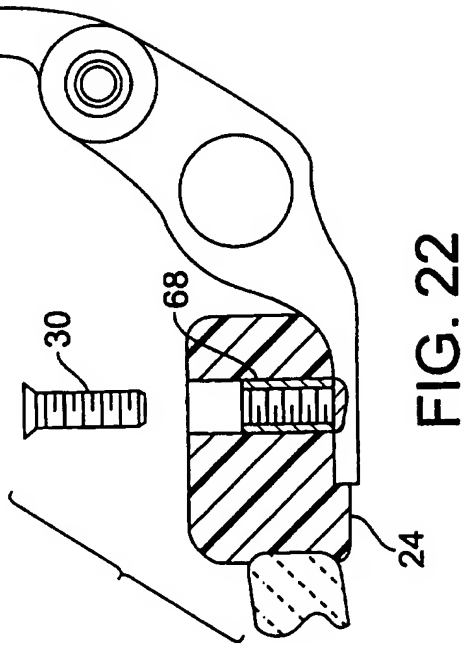


FIG. 22

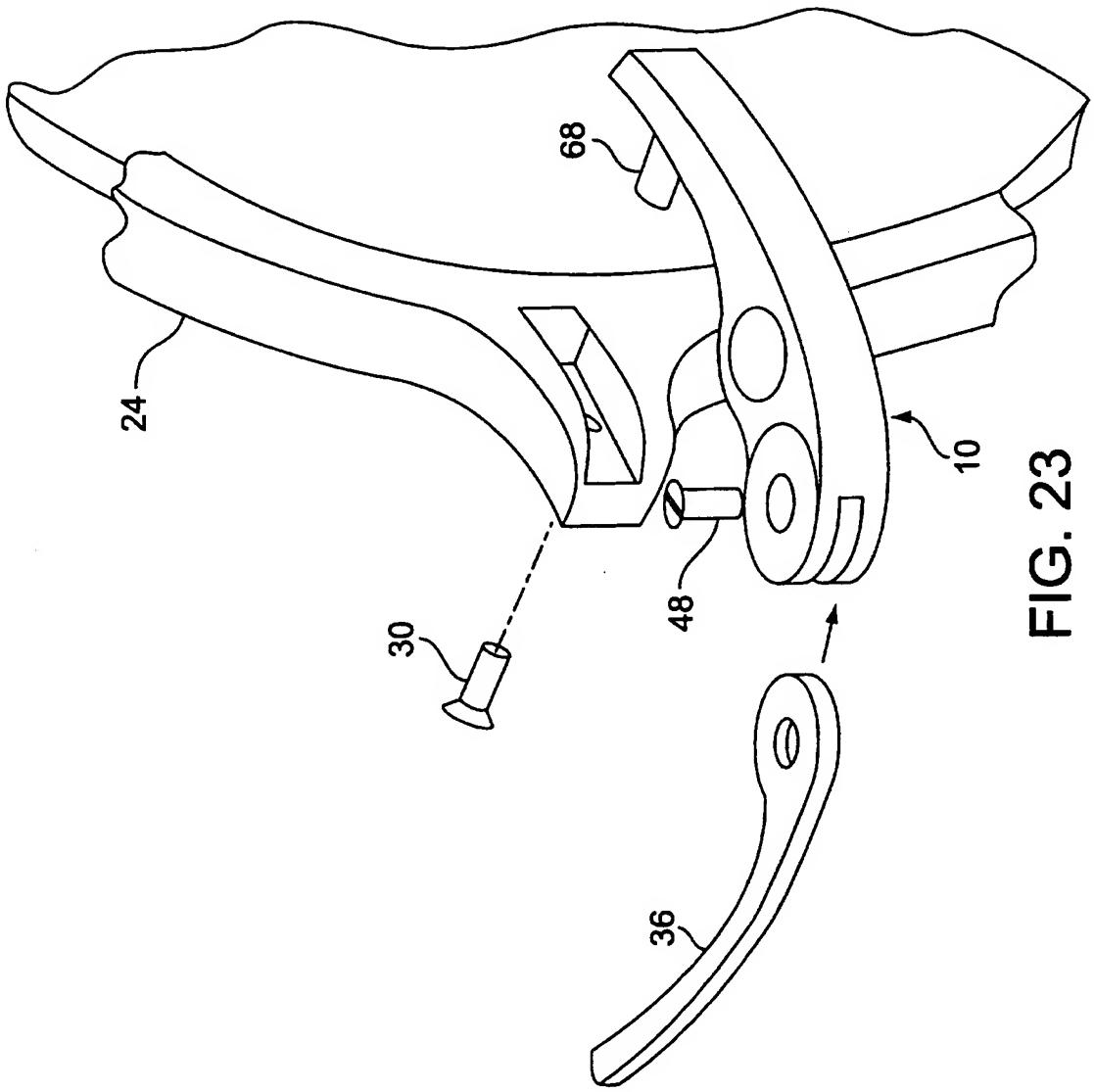


FIG. 23

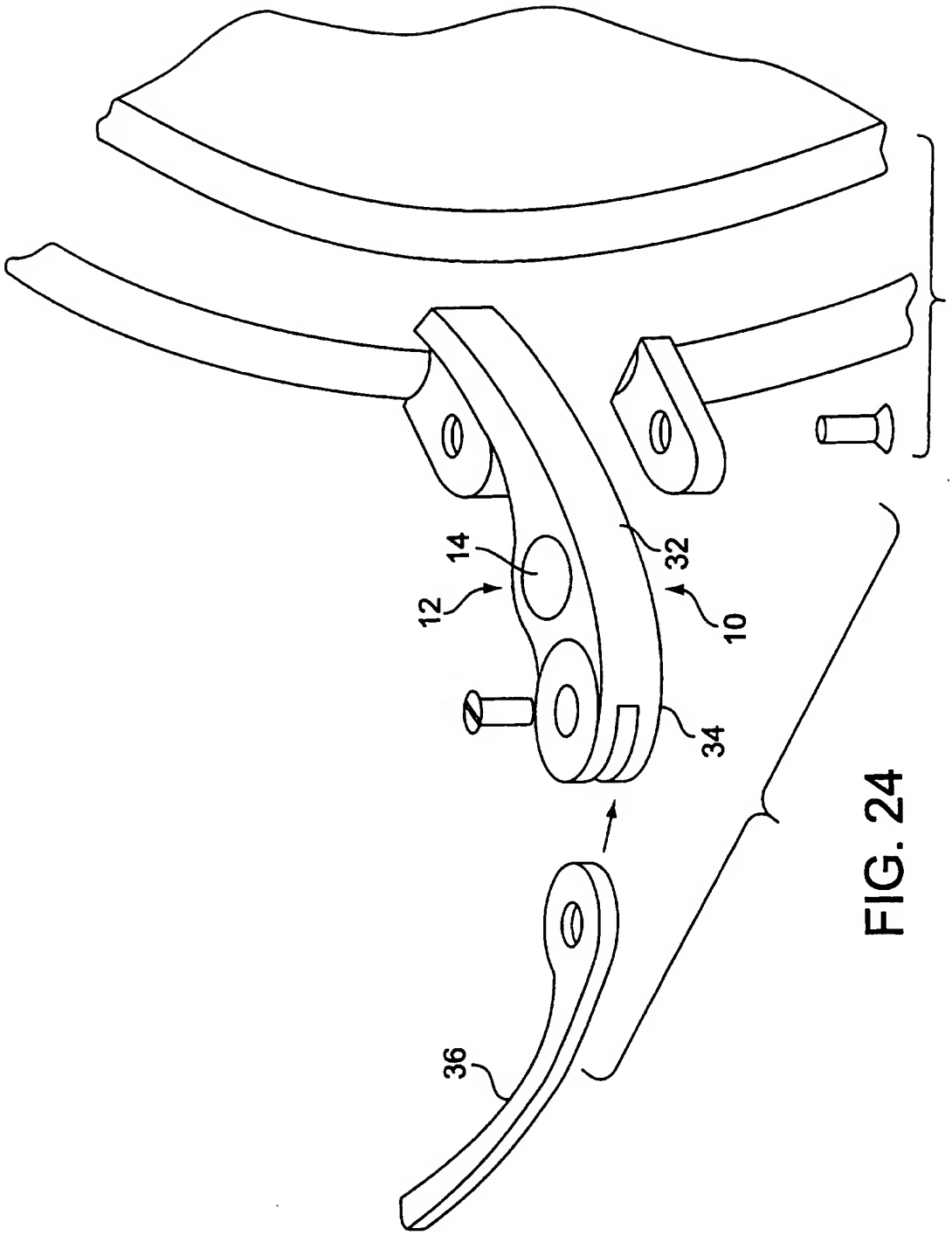


FIG. 24

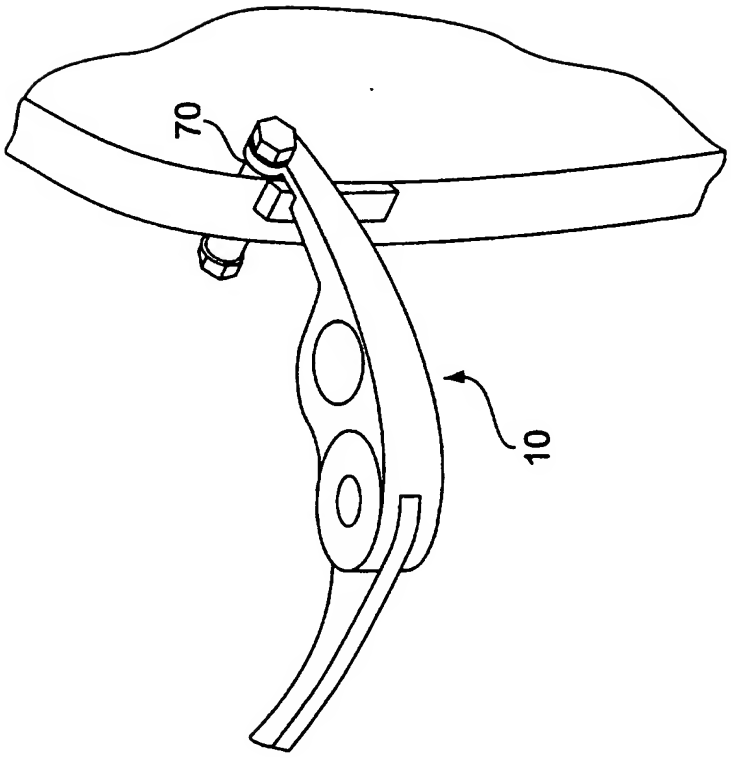


FIG. 25

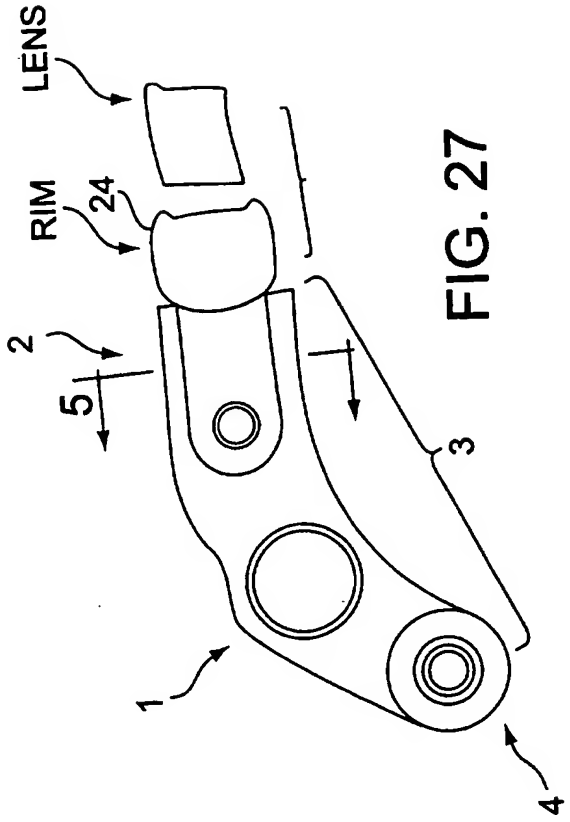


FIG. 27

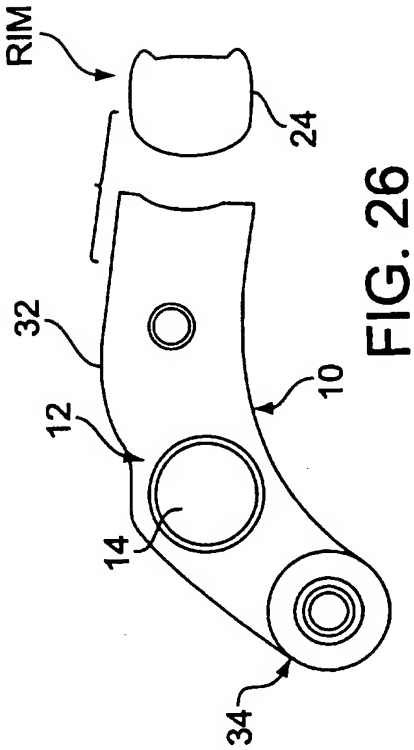


FIG. 26

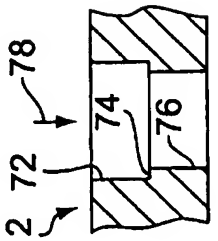


FIG. 28

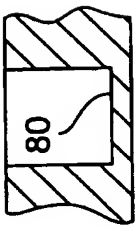


FIG. 29

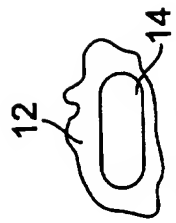


FIG. 34

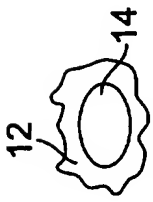


FIG. 33

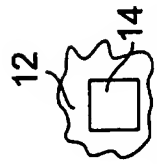


FIG. 32

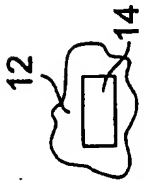


FIG. 31

FIG. 30

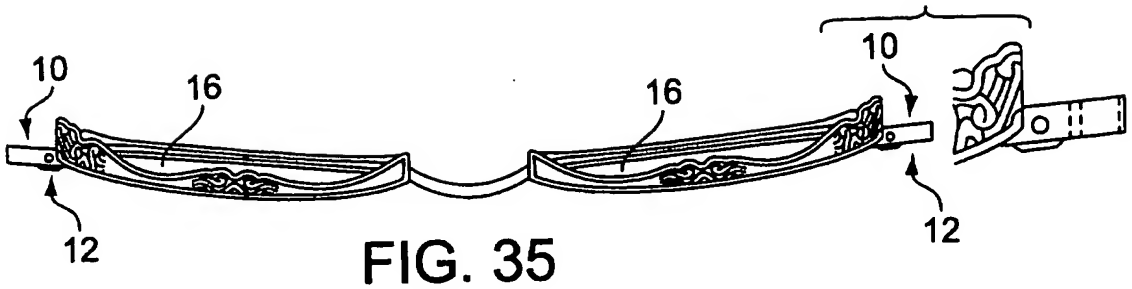


FIG. 35

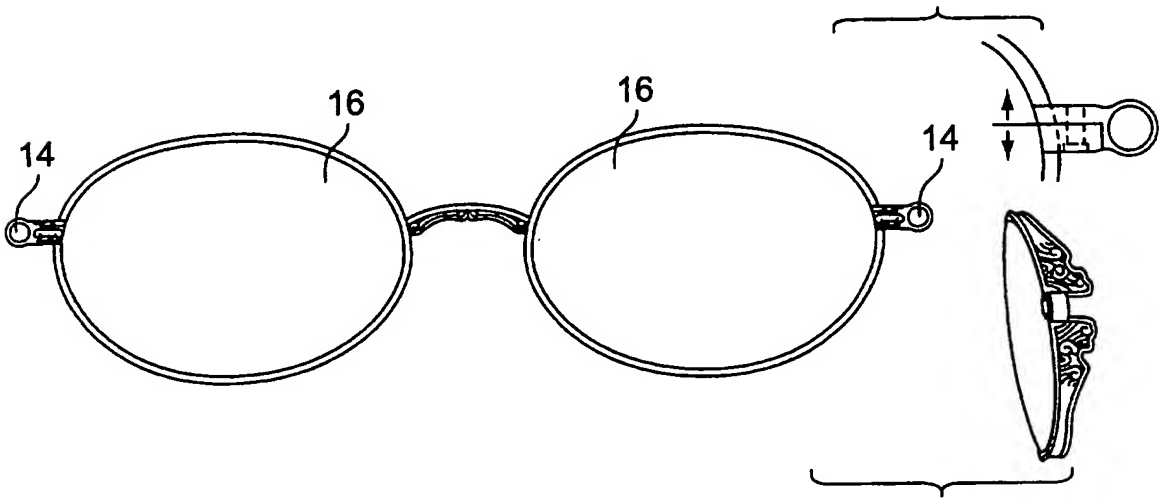


FIG. 36

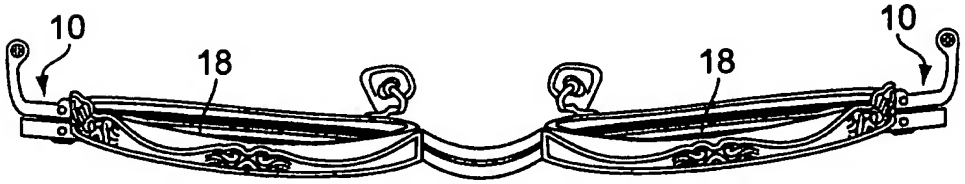


FIG. 37

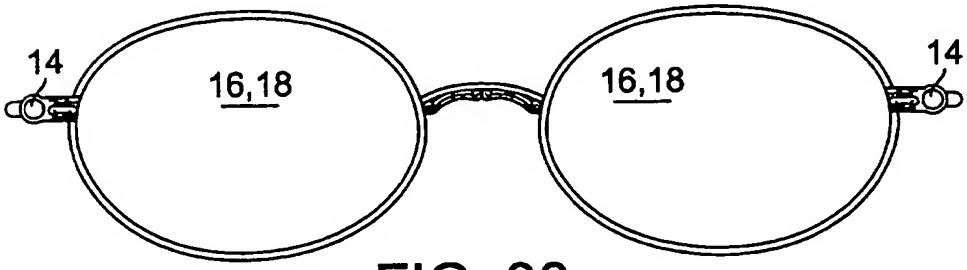


FIG. 38